

# TEXTILE BULLETIN

Vol. 51

OCTOBER 8, 1936

No. 6

## • Which Picture Describes YOUR MILL when sickness or accident strikes down a valued employee?

### Without a Scientific Welfare Plan

Expenses for medical treatment and hospitalization roll up—

Members of dependent family, cut off from regular pay checks, feel the pinch severely—

They approach employers, seeking a badly needed advance on employee's salary—

Neighbors and friends, touched by the situation, feel compelled to "pass the hat"—

Yet they realize that some more scientific plan might have been made available to lessen the hardships caused by the accident—

### With a Scientific Welfare Plan

A similar accident or illness with similar expenses, but the plan steps in to meet these bills—

The plan provides also funds for the dependent family of the employee—

The dependent family does not need to ask the employer for salary advances—

While expressing sympathy, friends do not now have to "pass the hat" for their fellow worker—

On all sides employees feel that their Mill Management has adopted a splendid welfare plan—

Nor need such a scientific "tailor made" welfare plan prove expensive to the Mill. Handling pay roll deductions need be the only expense incurred, if you prefer this arrangement.

## PROVIDENT

LIFE AND ACCIDENT  
INSURANCE COMPANY  
*Chattanooga Tennessee*



Southeastern  
Division  
Office:  
819 Johnston Bldg.  
Charlotte, N. C.

*Almost a Half-Century of Human Service in devising such "tailor made" Welfare Plans is the experience available to your mill, without obligation.*

Patented

# Vacuum Lint and Dust Collector

for

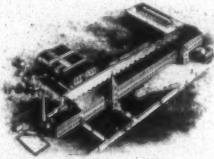
## Automatic Spoolers—Warpers—Nappers

and

## Textile Machinery

**To See IT is To Want IT-**

W. C. BLANTON, PRESIDENT  
W. F. LEARON, TRADE MANAGER



**SHELBY COTTON MILLS**  
SPECIALTIES: SATEENS & DOBBY WEAVES

CAPITAL \$100,000.00

SHELBY, N.C.

August 14, 1936

ALL AGREEMENTS ARE SUBJECT TO CHANGE WITHOUT NOTICE, TO MARKET FLUCTUATIONS, AND TO GOODS BEING UNSOLO.

Mr. E. J. Eddy, Sec. & Treas.  
The Textile Shop.  
Spartanburg, S. C.

Dear Eddy:

Received your letter of August 13, 1936 regarding my visit to Whitney Mill, Whitney, S. C. to inspect your vacuum lint and dust collector on the automatic spooler.

I have heard a great deal about the dust collector at different times but was very much surprised when I saw the automatic spooler running, equipped with the dust collector. It is really removing more lint and dirt from the machine than I thought possible.

We have been thinking about equipping our automatic spooler with the dust collector for some time. As soon as we have completed a few changes we have under way we expect to equip our spooler with the cleaner.

With kind personal regards, I am

Very truly yours,  
*J. O. Williams*  
J. O. Williams, Supt.

**To Use IT is To Like IT-**

W. C. BLANTON, PRESIDENT  
W. F. LEARON, TRADE MANAGER

FREIGHT AND EXPRESS OFFICE  
SPARTANBURG, S. C.

WHITNEY, S. C.

August 18, 1936

The Textile Shop.  
Spartanburg, S. C.

Gentlemen:

We are in receipt of your letter of August 13th, in which you asked us to give you our opinion as to the merits of the Vacuum Lint and Dust Collector which you installed on our Barber-Colman Spooler.

Before this cleaner was installed we had a very bad working condition. The floor had to be swept every thirty minutes and the spooler thoroughly cleaned every four hours. Since installing this cleaner we have had good working conditions and the floor stays clean for four hours. The machine is only cleaned after twenty-two hours of continuous run.

The cleaner has given every service you claimed for it and has been entirely satisfactory.

Very truly yours,

WHITNEY MANUFACTURING COMPANY  
*T. M. Montgomery Jr.*  
T. M. Montgomery Jr.,  
Treasurer

T. M. Montgomery Jr.,  
Treasurer

**- Engineers - Designers - Builders -**

**ALL TYPES OF VENTILATING**

**"NoDrip" Slasher Exhaust Systems**

**-THE TEXTILE SHOP-**

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SPARTANBURG, S. C.

Estimates

## Cotton Mill Position Best Since 1929

By Prince M. Carlisle

THE cotton textile industry as a whole is now in the strongest position since 1929 in the belief of a number of merchants in the New York markets. Some divisions, such as combed lawns, are more strongly fortified with unfilled orders than they have been at this season of the year since 1921. Shortages are growing acute in many divisions of the industry, and increases in production from now on are not likely to be sufficient to bring any appreciable relief from scarcity conditions.

Sales of print cloth yarn goods in September will be well over twice production, despite a high rate of operations and despite the fact that sales petered off in the last half of the month. The sales for the first eight trading days of the month were better than a full month's output. The third week added another full week's production to the sales totals, and since then sales have been sufficient to bring the total well over 200 per cent of a month's output.

### NET BACKLOG IS LARGE

The "net backlog" of the print cloth yarn cloths is now equal to about two months' production. By net backlog is meant the excess of unfilled orders over stocks. This does not, of course, mean that mills have no goods to offer the next two months, since much of the business on the books calls for deliveries through December and there is an appreciable amount of first quarter shipments on the books.

Other coarse yarn gray cloths also are very strongly fortified with unfilled orders. Sheetings mills are running at a high rate and nearby deliveries are scarce. A number in the trade here have been somewhat surprised by developments in sheetings. Production in the early part of the year was running small, and with the pickup in demand in the late spring, several constructions became scarce, with resultant increases in prices. This attracted a good deal of increased production, and the trade looked for the usual full swing of the pendulum. It was expected that this increased production would throw the supply situation into reverse and bring a relatively heavily stocked condition, depressing prices. To the surprise of a large section of the trade, the higher production was handily taken up and still is apparent insufficient to satisfy demand.

### GOOD DEMAND FOR SUITINGS

A development of no small importance is the growing call for cotton fabrics for the women's suiting and skirt-

ing trades. This has provided a good outlet for fairly heavy goods, which, taken together with the improving business in men's suitings and slack cloths, accounts for a good portion of the larger cotton consumption by mills each month. In addition to the new fabrics which have been developed for the women's field, some of the old standard numbers have also entered the field. Thus, there was a good deal of buying of 2.85 jeans this month for skirtings account.

### FINE GOODS MUCH STRONGER

The position of fine yarn gray cloth mills has improved tremendously in recent weeks. Sales have been made of large quantities through the end of the year, and prices in the latter part of September showed good gains. The fine goods mills are entering the new season in an excellent position. Most mills are running at capacity without accumulating stocks, having booked large forward orders. The chances seem probable that there will be an acute shortage of such goods as combed lawns, organdies and dimities. A substantial part of the reason for this situation is the liquidation of a number of fine goods mills since a year ago, but another important factor has been some exceptionally good merchandising.

### COLORED GOODS WELL SOLD

The colored goods mills have worked into a good position, and some now find themselves regretting that they are so heavily sold, since they find it necessary to turn down large orders for deliveries they cannot make. Merchants here say, however, that it could not have been otherwise, for if the mills had not taken the large forward business when they did, the strong position would not have been built up and prices probably would be lower than they are now. Some insist, however, that prices on such standard goods as denims are lower than are justified on the basis of cost and the market position. Chambrays are well sold. Coverts, express stripes, pin stripes, hickories and the like are in fairly good demand, and are not being made in any larger quantities than can comfortably be sold. Tickings have sold in good amounts in the woven color division, and while there is some discrepancy in prices as between mills, the market appears closer to stability on tickings than has been the case for a long time.

Sheets, pillowcases, towels and domestics generally are strong. The standard branded sheet lines are sold far

(Continued on Page 23)

# Obsolete Equipment And Methods Cause Failure Of Many Mills\*

By Herman Cone, Treasurer

Proximity Manufacturing Company

THE depression through which business has gone in this country since 1929, and from which, I hope, we are now emerging has left in its wake a tremendous number of business wrecks. The textile industry has suffered at least its share of casualties, as evidenced by the fact that at one time there were approximately thirty-eight million spindles in place in this country, as against thirty million in 1935. Over 20 per cent have "gone by the boards."

Owing to the severity of this depression, it was absolutely impossible for all businesses to survive and, consequently, the weaker organizations had to fall by the way-side.

There are various reasons why plants had to close. I will only have time to touch on one cause, and that is, obsolescence, both with reference to equipment and to manufacturing methods. A great many mills were forced out of business because their financial set-up was such that they were unable to keep up with the procession in the installation of new machinery as it came on the market. While the development of textile machinery has not been quite as marked as that of some other industries, such as the automobile and radio, at the same time, in the last ten years there has been quite some progress made in the nature of labor-saving equipment, such as long draft spinning and roving, high speed spooling and warping, high speed looms, etc.

All of you are acquainted with the fact that a mill equipped today with old type spinning, winding, warping and weaving is up against a pretty stiff problem when it comes to competing with its neighboring mill equipped with all modern appliances, but most of you are not in a position to do much about it.

The question of obsolescence as to manufacturing methods, however, is a subject that we are all well acquainted with and are vitally interested in, and can do something about. Our very jobs depend on our being able to cure this type of defect if it happens to exist in our organization. You men who are connected with older mills and who have been running your plants more or less along the same lines that they have been run for years, must realize that a new organization starting from "scratch" with new equipment and new ideas about job assignments, may have some advantages over you. It is your responsibility to do the best you can to work with what you have to bring your plant as near to a competitive position with the new plants as possible.

There is a great tendency on the part of some executives to resist new methods. This is a trait of human

nature, and is very difficult to overcome. It is a perfectly natural condition for an older man to get into, as evidenced by the example of a man of middle age trying to learn how to play golf. He adopts a swing that he feels is correct and suitable for his shape and size, and it is very difficult for him to alter his style of play in order to improve his game. On the other hand, take a young fellow starting in. Invariably, his idea is to watch better players and constantly strive to copy the swing of the best golfers. In most cases, the younger man will find out where his faults lie and correct them, thereby improving his own game.

The same theory applies to a great many older mill executives. They have been running their mills or departments for many years, and have been so close to their jobs that they have been unable to visit newer plants where more advanced methods have been employed, or have been so hide-bound that they fail to recognize their own shortcomings. Whenever suggestions are made to these older men that they might make changes to add efficiency to their departments, they answer that the other fellow is too theoretical, and that as far as their particular departments are concerned, they are running their jobs as well as they can be run. That state of mind is extremely dangerous. I don't mean to say that anyone should jump in and take hold of every new-fangled idea that comes along, but I do feel that the older men should approach every problem concerning improvement with an open mind.

If the older man is able to get this fact firmly fixed in his mind, it seems to me that by combining the experience that has been gained through years of actual contact with the job, with the technical knowledge that can be obtained today through contact with newer organizations, he will be in a very strong position.

The advantage of the newer organization is not overwhelming. A great many mills have started up with overseers and superintendents, trained theoretically, who have been put into key places without first having been through the fire of experience. They have made costly mistakes, and ones that could have been avoided had seasoned and experienced men been on hand to help make the decisions.

I really believe that if an older organization will get itself geared up to the point where it can properly balance the older and newer methods of manufacturing, it will be in a position to hold its own with any newly-organized and equipped mill that will be built to compete with it.

The resistance to newer methods is not only due to

(Continued on Page 22)

# Interesting Discussion at Greensboro Meeting

## S. T. A. Group Considers Various Technical Discussions

**A**N address by Herman Cone, treasurer of the Proximity Manufacturing Company, Greensboro, N. C., and an interesting discussion covering technical subjects in various departments of the cotton mill featured the fall meeting of the Northern North Carolina-Virginia Division of the Southern Textile Association, held at King Cotton Hotel, Greensboro, on October 3rd. About 100 members were present.

L. J. Rushworth, superintendent of Riverside plant of Riverside and Dan River Cotton Mills, Danville, Va., who is chairman of the group, presided. The group was welcomed to Greensboro by George P. Stone, superintendent of Proximity Manufacturing Company.

W. Lexie Davis, of Proximity Manufacturing Company, was elected a member of the Executive Committee.

Mr. Cone spoke on losses sustained by mills through obsolete equipment and methods. His remarks are published elsewhere in this issue.

In opening the meeting Chairman Rushworth stated that no set list of questions had been prepared for discussion and invited members to submit questions from the floor. The report of the discussion follows:

### SMALL DIAMETER SPINNING ROLLS

W. A. Hunt, Supt., Pickett Cotton Mills, High Point, N. C.: I should like to hear discussed any trouble or any experiments with what we term a loose draft and a small diameter of roll for the top roll in your spinning, and this roll being lighter. At the Pickett Cotton Mills we have made some experiments with a small diameter cork roll. I wonder if someone is making similar experiments with something like that. I hear that some men are making experiments with this roller, a solid roller of steel.

Culver Batson, Supt., Consolidated Textile Corp., Lynchburg, Va.: I have made experiments with a small middle roll and ran it quite a while. We have had wooden middle rolls and steel and made some out of aluminum and made some out of cork. I think that is about all the kinds we had. We tried everything we could think of. All of them seemed to work very well; we had good results from all of them. Finally, we changed over to a middle roll of steel, because we can make them in our own machine shop. I think the kind you use depends on how the mill is prepared.

The whole thing depends on the middle roll. We have a certain weight for 20s, a certain weight for 30s, etc. I think you do get better results; you get away from irregularity of yarn and get a little more benefit from it on short cotton. From 1 1/16-inch down you get better results from a light middle roll, but you have to get that weight right.

Chairman: Will you state the diameter of the roll you have tried?

Mr. Batson: The diameter does not make so very

much difference; it is the weight. You have to watch the ends so that they do not get caught down in there, but the weight is the main thing.

Mr. Hunt: Mine is in the experimental stage, but we are pleased with the results that we have obtained from from this experiment. We have increased our breaking strength about six or seven pounds on 30s yarn (knitting yarn) and have three per cent less variation than we had before we had that.

### TAKING WEIGHT OFF OF ROLL

D. C. Anderson, Overseer Spinning, Pickett Cotton Mills, High Point, N. C.: I should like to hear some gentleman discuss the results from a middle roll of cork, as compared with merely unweighting the original leather roll. What has been your experience with just unweighting the present leather roll?

Mr. Batson: What you do there is just take a lighter roll and run up the setting there. Of course, you get about a 1/2-inch closer setting.

Chairman: Is your idea there the getting of the longer draft on the old spinning?

Mr. Hunt: That is exactly my idea, as Mr. Batson brought out. We fellows have no money to buy long draft and are trying to substitute something that will meet the competition of our keen competitors.

Chairman: The idea is, of course, that the small middle roll places them all closer to the front roll and allows you to have better control over the shorter fibers and thereby get longer draft and heavier roving.

Mr. Jennings: May I ask the question how much draft he is using on that roller?

Mr. Anderson: Draft of 14 on 24s to 30s yarns, 1 1/8-inch cotton.

### BETTER BREAKING STRENGTH

L. V. Andrews, Supt., Martinsville Cotton Mill, Martinsville, Va.: We got better breaking strength with smaller rolls.

J. C. Farmer, Asst. Supt., Carolina Cotton & Woolen Mills Co., Fieldale, Va.: I had an experience at one time with what this gentleman was speaking of—unweighting the middle roll, and our purpose was to eliminate the speeders. We were using a 2200 grain roll. We used the 1.10 single roving. That gave a draft of around 16.5. We used about 1-inch cotton and went up to about 1 1/16-inch. Of course, the only thing we gained there was eliminating the speeders. By increasing the draft we got along all right.

Mr. Anderson: After unweighting his middle roll, did the gentleman who just spoke experience any improvement in the evenness of his yarn?

Mr. Farmer: In making this test we changed one frame over and had to increase the break draft from 16 to 25. We did find we had a yarn just as strong as before, but I do not know that it was any better or any more even. We also closed them up just as close as we

could. I can not say that the yarn was any better, but it was just as good.

Herman Cone, Treasurer, Proximity Mfg. Co., Greensboro: Gentlemen, as treasurer of the Proximity Mfg. Co. I appreciate very highly the invitation that you gentlemen have extended to me to make a few remarks this morning. I could not help but listen in on the latter part of the discussion about increasing the breaking strength of the yarn by different methods; and, being a treasurer, my thoughts were concentrated on cost, more or less. I noticed that the last gentleman who spoke said that he got quite a lot of additional strength in his yarn by increasing the length of his staple about one-eighth of an inch. I wonder what the treasurer of his company said to him when he suggested to the treasurer that they increase the length of the staple of the cotton about one-eighth of an inch and thereby increase the breaking strength of his yarn. I suspect that the increase of just that small amount in length of the staple would amount to an increase in cost of at least 0.5 cents a pound. That is, the increase in the length of the staple would add that much in the total cost of the yarn produced.

Gentlemen, I do appreciate this invitation very highly, and to show my appreciation I shall not trespass on your time very much. I know that you are practical men, engrossed with practical problems, and so I have written down what I have to say in order to save time and will now read it.

Mr. Cone then read his prepared address. (See Page 4.)

#### HIGH SPEED WINDING AND WARPING ON PATTERN WORK

R. K. Craven, Overseer Weaving, Minneola Mfg. Co., Gibsonville, N. C.: I wonder if we have any members present this morning who have installed a high speed winding and warping system on pattern work? If so, I should like to hear something from them about it.

Chairman: Is there anyone present doing pattern work on a high speed warper? We have done that at the Riverside and Dan River Cotton Mills; have run pattern work on the high speed warpers. We are not doing very much of it at present because the line-up is taking the capacity of the warpers and spoolers we are running at present. Unless you are going into a very elaborate pattern, they can be creel in the warper very satisfactorily. The idea is that you have to arrange your planning of the pattern a little differently from the regular warping. As you lay your warp out on the card and do the creeling, naturally you are making a straight line up and down. But in the high speed warper you have to rearrange that pattern in units of twelve. You have to rearrange the tridents in dozens. If you lay your pattern on the pattern table and then take your tridents in dozens and put them in the creel you can make your pattern on the high speed warper. That is the way we ran them.

Mr. Craven: Have you used that in patterns where you had alternate colored yarn?

Chairman: Yes, we have done that, and also using three colors. It is a little tedious, but if a man takes the trouble to learn you can get a good range of patterns on the high speed warper. It is no different in form from the regular warper; it is just a different method of building your creel. You just build your patterns on your tridents and then put your tridents in rotation in your creel. You put in two of black, say, and three of blue, and two of red, or whatever it may be, and then put the tridents in your creel.

#### BEAM DYEING SYSTEM

Mr. Craven: Do you use the beam dyeing system?

Chairman: We have a beam dyeing system with the perforated beam and dye eight beams at one time. We put eight beams in the cylinder and dye them at one time. That is the capacity of the machine. Suppose you want to dye a smaller number—seven or six. You will blank off the pressure valves on the spaces that you are not using for the beams. We also do quite a little bleaching in that way. You understand the system of the cylinder with the perforated beams for yarn dyeing?

L. A. Elmore, Asst. Supt., Rhodhiss Mills Co., Rhodhiss, N. C.: At one of our mills we are planning to put in long-draft carding and spinning. I should like to know some of the troubles I might expect to have and just what to do to overcome these troubles and also if I may expect as good or better breaking strength with the long draft. Also, can the spinner run as many spindles?

#### LONG DRAFT SYSTEM

Mr. Jennings: I run the long draft system. Maybe we have been really fortunate, but it has turned out well for us. There are certain things connected with the long-draft system, however, that I have not overcome and think I shall not overcome for a long time. One is the fly. I have lots of fly that I have not been able to overcome yet, and probably I shall have it. One way to overcome that is to put in a cleaning system. That will take care of some, but not all.

Last week we ran some tests, and I will read you the results:

#### RESULTS OF TESTS

This was with single-process picking; 14-ounce lap; 54-grain sliver on cards; 6 ends up and 54-grain sliver on coarse drawings; 6 ends up and 54-grain sliver on fine drawing. We have metallic rolls on the slubbers and drawing. Make .60 hank roving on slubbers; double two on intermediates, make 1.80 hank roving. Single on spinning, make 26/1 yarn. This is on cork rollers, Casablanca long-drafting system. We got an average breaking strength out of that of 66.83. Now, the twist multiple used in that will have right much to do with the breaking strength, too. That was with 4.75 twist multiple. I changed that multiple then to 4.56 and got a breaking strength of 67.41. With this breaking strength of 67.41 the number was 26.09. I also put on another twist with a twist multiple of 5.03. That gave a breaking strength of 65.37, and the number was 25.88. The number ran very well, but the breaking strength dropped. The 4.56 twist twist multiple is the proper multiple to use, although I am using 4.75 right now.

#### ENDS DOWN PER HOUR

At the same time I made a test of end breakage per hour per 1,000. I made a test on Monday of this week and found that my end breakage was 50.75. That was on the morning shift, and the end breakage was 46. So you see the end breakage was not bad.

This yarn was made from 15/16-inch cotton—I will not say middling cotton because I think it is below middling.

Mr. Jennings: I forgot to answer one part of the question. The spinners can run as many spindles as they are running now and possibly more.

Mr. Andrews: Isn't it a fact that the cleaning system is a great help? Naturally, the cleaning system takes the place of a lot of cleaning that the spinner would otherwise have to do, and, in addition, it knocks out a lot of that short fiber.

#### CLEANING SYSTEM

J. C. Farmer, Asst. Supt., Carolina Cotton & Woolen

**★ WHEN KEENER  
COMPETITION CALLS FOR  
BETTER DYEING OPERATIONS**

*- Brighter shades, level colors, even in cross dyeing*

**ADD GRASSELLI FORMIC ACID  
TO YOUR DYE BATH  
AND WATCH RESULTS**

Let us also  
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Barium Chloride	Phosphate of Soda
Bi-Chromate of Soda	Silicate of Soda
Bi-Sulphate of Soda	Sulphate of Alumina,
Bi-Sulphite of Soda	Sulphate of Soda,
Carbonate of Soda	Anhydrous
Caustic Soda	Sulphite of Soda
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100-101 BROADWAY

Mills Co., Fieldale, Va.: There is one question I want to ask. We have long draft, and I find that the spinners have much less creeling to do, due to the larger package. That overcomes some of the extra work that has to be done in cleaning. We have had some talk of installing a bunchless cleaner. It seems in our system of long draft it is very hard to keep the spinning clean up around the cot. It does not seem that the cleaning system would help on that. I should like to hear from someone about that.

John D. Scott, Overseer Spinning, Proximity Mfg. Co., Greensboro: That cleaner that you put on in there would have a tendency to break the fly up; it does not pack it. You have to watch that and clean it off every day. If it is not cleaned off, naturally the cleaner will blow it in under the cot. I think the cleaner system breaks the fly up and keeps it from accumulating. If you once let it accumulate, then you have a job to clean it out. For instance, if one of our fans breaks down and does not run for a couple of hours, then we just have to shut those frames down and clean them out.

Mr. Farmer: What type of cleaner do you have—the revolving type?

Mr. Scott: Revolving type. In the Casablancas we also have the stationary clearer, but we took that off and do not use it at all. We found we get better results by taking it off than by leaving it on.

Mr. Farmer: Do you use a clearer on the back roll?

Mr. Scott: No, we do not use one on the back roll or middle roll either.

#### OTHER LONG DRAFT SYSTEMS

Mr. Elmore: I noticed that practically all the discussion was on the Casablancas system. If anyone has had experience with the other systems, I should like to hear from him.

Mr. Anderson: Our spinners were able to run about the same number of sides. The evenness of the yarn was not as good. The breaking strength was about five pounds better on the same cotton. This was with the Roth system. I might mention, too, that we did have the overhead cleaning. That was an advantage, of course, as it kept the work cleaner. We had fewer slubs in our work by having the overhead cleaning system.

Chairman: Does the difference in the creeling beyond roving balance the difference in the cleaning, so far as the spinner is concerned?

Mr. Anderson: There is an advantage in the difference in creeling. It decreased the creeling; I think there was about 35 per cent less creeling.

Chairman: What is your experience, Mr. Scott?

#### CORK ROLLS AND HUMIDITY

Mr. Anderson: I should like to ask a question, and I should like to hear a lengthy debate on the subject. That is the cork rolls. A gentleman back here said he had cork rolls in spinning—24s yarn, I believe. I should like to ask him and any others who have cork rolls if they had to increase or decrease the relative humidity and if it was necessary to increase or decrease the pounds on the rolls (that is, the front roll). Was it necessary to decrease or increase the weight on the roll? How often are the cork rolls buffed? Did the cork roll give more even yarn, or not, or did it add any more strength?

Mr. Jennings: So far as humidity is concerned, we did not have as much. When we put in the cork rolls we had an old humidifying system, and it did not always work. Since that time we have taken out those obsolete humidifiers and put in an up-to-date system, and now we have a wonderful humidifying system. But when we first

put in the cork rolls we had no uniformity about our humidity. When we stopped those old humidifiers and put in the new system we found out what the humidifiers were doing. There was a period there of about three weeks that we had no humidity at all. Our new system is working wonderfully for us. I should say that our humidifying system has increased our relative humidity about three to five per cent, or perhaps six.

As to the weight on the roll, we did not put any more weight on the roll. We put in the cork roll with the same weight we were running the other rolls with, absolutely. But when we put in the long draft, then we put in more weight on the front roller, or changed the hooking up of it, and that put more weight on the front roller. We have got right around 28 pounds on our front roller now.

The gentleman also asked how often we buff the cork rolls. That would be rather hard to answer. We take our rollers out and clean them; we take the filling rolls out and absolutely clean them twice a year. They are harder to keep in condition than the warp rolls. The warp rolls are taken out once a year and cleaned. At that time we take out all rolls that are not up to standard, and the old rolls that are goods are rebuffed and go right back into the work. I might say that we buff our rollers once a year on warp and twice a year on filling. Our warp is 26s yarn and filling 16s.

I would say the evenness of our yarn is just about as good as it was before. Of course, we have the long draft in there. Our breaking strength has held up very well; it is right around the standard. Sometimes it has been a little bit over and sometimes a little bit under since we have been running the cork rolls and long-drafting system. Of course, I do not know that we are getting exactly the same kind of cotton; it varies from year to year. We put in the long-drafting system and the cork rolls at the same time, and we can not credit either one with all the improvement.

#### LIKES CORK ROLLS

Mr. Stone: We have had long draft on our warps for probably four or five years, and we have had on that warp a frame of cork rolls for probably two or two and a half years. They seem to hold up; I think the gentleman need not worry about how often we will have to dress them up. They do not need dressing up very often. One thing I have noticed is that we have never found an end to lap up back on the cork roll. We have never had one of them choke down on that particular frame. For that reason I like cork rolls. For other reasons I am not so crazy about cork rolls, though I think they are all right. But I do like that feature. Of course, we are running a tremendously high speed. It does lap up some on the cork roll on that, but I lay that to the speed of the frame. We lost in breaking strength on our warp, and on our filling we gained, so I guess it is about fifty-fifty.

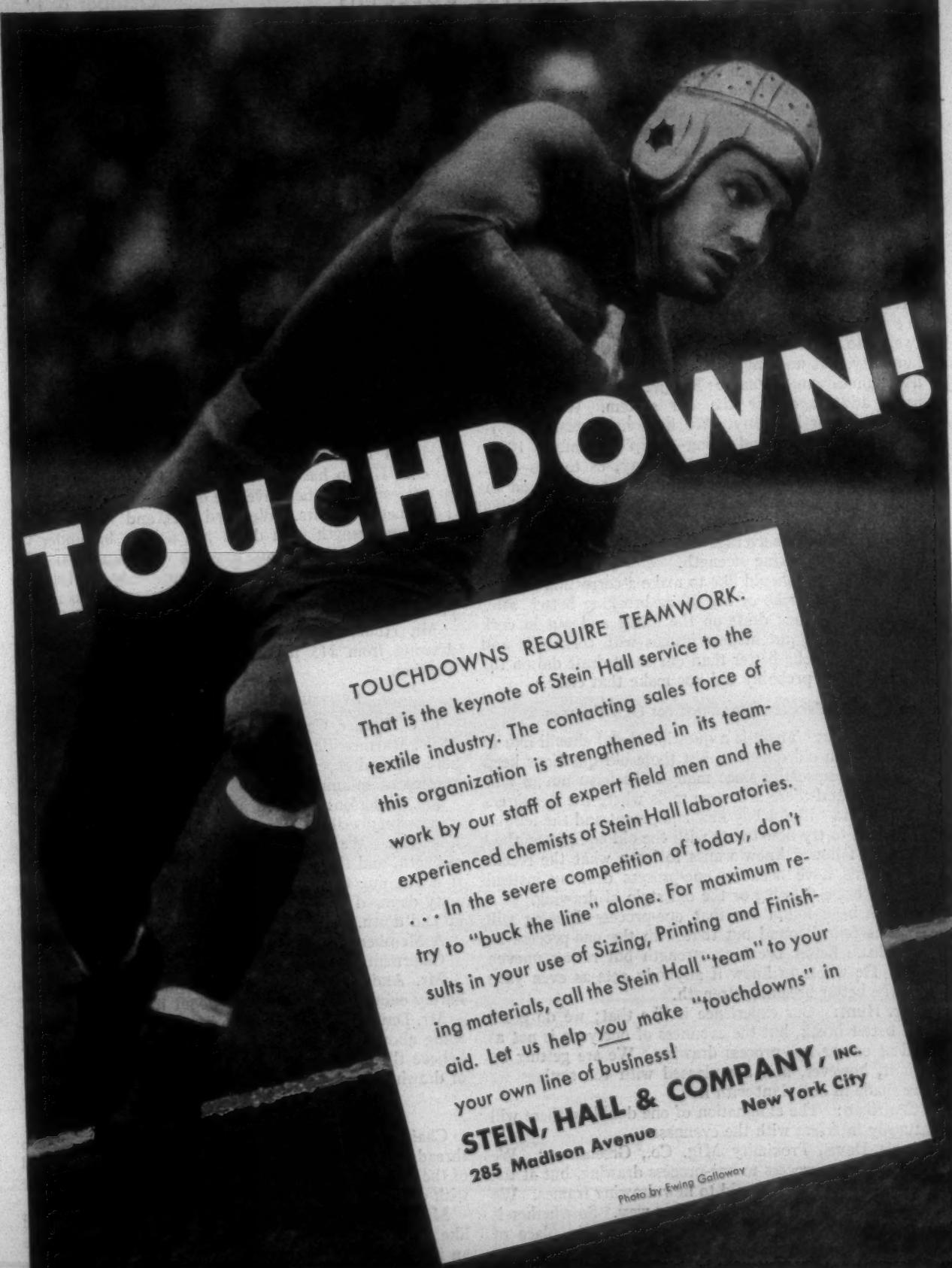
So far as the humidity is concerned, we really increased our humidity. I just wonder if we had enough to start with, even on the short draft. If you increase the humidity, I do not see why you should have any trouble with cork rolls.

Chairman: After a week-end spell with dry condition, did you have any more trouble in starting up on Monday morning with the cork rolls than with leather rolls?

Mr. Stone: No, sir.

Mr. Anderson: Do you run your humidifiers over the week-end?

Mr. Stone: No, sir.



# TOUCHDOWN!

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STARCHES, DEXTRINES AND GUMS FOR  
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Mr. Anderson: Has anyone here installed cork rolls on what is commonly known as the slip draft and not long draft? If so, with what results?

Mr. Scott: We have some spindles on cork rolls. We run from 8.75s to 13.75s. On the end-breakage tests, comparing the cork rolls with the calfskin rolls, our breaks are about 8 per cent more on the 8.75s. On the 13.75s our breaks are about 40 per cent more. Whenever we change yarns from 8s to 13.75s, that roll has roughened up enough so that it will break that yarn.

#### REBUFFING ROLLS

Chairman: Of course, the question of rebuffing comes in there, and the frequency with which you rebuff will have quite a lot of effect on the yarn you are making. We have had quite a number of cork rolls for about twelve to fourteen months. We slightly increased our humidity, but not any great increase. We did install a new humidifying system, as Mr. Jennings did, which gave us an advantage over the old system. We got just slightly higher humidity. We have had satisfactory results both on warp and filling—warp in numbers 10s to 34s and filling in numbers from, say, 8s to 30s—with cork rolls. The breaking strength, I would say, on the larger range is about the same. There may be individual tests on which you think you are getting better breaking strength, but on the average I would not say the cork roll increases the breaking strength.

Mr. Stone: I should like to make a correction in what I said, when I spoke of my filling breaking better, after we put in the long draft on the filling and put in cork rolls. After we put in new frames with cork rolls and long draft it broke better than our short draft did on the old frames. I probably did not make that clear.

#### ONE-PROCESS DRAWING ON OLD FRAMES

Mr. Batson: There is a question that I should like to ask. It is an old question, but these old questions keep coming up, especially since many mills have put in new equipment and there are some mills where the treasurers are tight and will not buy new equipment and the fellows there have to try new twists with the old equipment they have. A fellow I know wants to learn what the recent experiments have been on one-process drawing instead of two-process drawing or the old style of drawing.

It has been found out that one-process drawing will run, this fellow found out that with the one-process he got a little better breaking strength but rather uneven yarn. He wants to know if anybody gets as even yarn with the better breaking strength.

Mr. Hunt: Our experience is like that; we do get a little better break, but the evenness of our yarn is not as good as on the two-process drawing. We are getting by with it, however, and are pleased with the savings we have made in our plant with it.

Chairman: The elimination of one doubling there will naturally interfere with the evenness.

Lexie Davis, Proximity Mfg. Co., Greensboro: We went from two-process to one-process drawing, but at the same time we went from old to new drawing frames. We could not tell much difference either way. So whether it was because we got new rolls throughout, in place of those that had been running many years, I do not know. If we got any benefit from it we must give the new drawing frames part of the credit.

Mr. Batson: You put in the new control there?

Mr. Davis: No, sir; put in new ones of the same style. They had many improvements over the old.

#### LENGTH OF STAPLE AFFECTS ONE-PROCESS

Mr. Stone: I think a great deal depends on the staple

of the cotton as to whether you are going to get by with one-process drawing. I have tried that thing pretty thoroughly; I have experimented for the last two or three years, trying to cut out one process of drawing, and I have not been able to do it yet. I think that probably if you run cotton an inch long or longer you get by all right. But in my opinion, where you buy Southern cotton, which is very irregular in staple, and you buy  $\frac{7}{8}$ -inch (and probably get much in it that is shorter), if you try to run one-process drawing it will affect your breaking strength. I will say this; the roving will show better and evener with one process of drawing every time than it will with two processes. But when I get in the yarn my two-process has very much better breaking strength than the one-process.

Mr. Hunt: I find Mr. Stone is exactly right. In my combed stock I do get better average breaking strength with one process, but on the two-process I get evener yarn.

G. E. Moore, Supt., J. M. Odell Mfg. Co., Bynum, N. C.: I think the staple of the cotton has a lot to do with it, but I think the biggest thing in this proposition is speed. If you have an excess speed there, say, 300 or more, I should rather have one drawing, say, around 200. I get better results. We tried this, and we found our breaking strength went down just a little bit under the one-process. We did not have as even numbers. The cotton certainly has to do with it, but the speed has more to do with the drawing frame than the cotton, in my experience. We cut the speed on our front drawing.

Mr. Hunt: The gentleman is right. I reduced my drawing from 315 to 246 when I went to one-process drawing.

#### SYNTHETIC RUBBER ROLL COTS

C. O. Turner, Carder and Spinner, Martinsville Cotton Mills, Martinsville, Va.: I should like to ask if anybody here has had experience with the synthetic rubber cot in carding or spinning.

Mr. Anderson: I have just a few of those. Frankly, it runs very well. We have had no trouble with it up to this time. We have had a slight increase in breaking strength, and the evenness is a little better. It looks as if it is going to be good. We have had them in about sixty days. I have not seen a lap-up and have not seen an end down.

A Member: It sounds good.

Chairman: How many spindles?

Mr. Anderson: Only twenty-four spindles on it—hardly enough to tell anything about it.

Mr. Davis: I should like to hear somebody say something about the controlled draft on drawing frames. I believe the chairman has had experience with that type of drawing frames.

#### CONTROLLED DRAFT DRAWING

Chairman: The new type of drawing has sixteen threads feeding into the drawing at the same time instead of the old system with the six cans. Is there anyone here with experience in that type of drawing?

Mr. Moore: We have the new type of drawing and like it very much. It is more even, and we have made an improvement with it.

Mr. Batson: Mr. Moore, do you think you save in cost on it, or do you just get better work?

Mr. Moore: We did not save in cost.

Chairman: You get a more even result, Mr. Moore.

I would say that we have some new drawing, the sliver lap machine into the drawing, and our experience has been that we get a more even sliver. So far as the cost is

October 8, 1936

## TEXTILE BULLETIN

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concerned, there is very little difference; but we are sold on the drawing on account of the evenness.

Mr. Davis: Do you have to have more than one of those laps to fill up one can?

Chairman: No; there are two individual machines. There is the machine that makes the spool with sixteen slivers from sixteen cans. Those sixteen slivers go on to one spool, and then the spools are put on the drawing in tandems of four. In other words, you get the thread from sixteen slivers instead of six.

Mr. Davis: Do you put those four in all at the same time?

Chairman: No, they are all put in along the machine. Each plate on the machine takes care of one spool.

Mr. Davis: What is the effect on the sliver in front when you put in one new spool?

Chairman: When you put in the spool you draw it through and twist it just as you do on regular drawing. It just comes through in a wider sheet. Instead of coming through in six it comes through in sixteen openings and comes through into the finished sliver into the one can.

Mr. Davis: What I mean is that you do not put in the piecing before the can gets full?

Chairman: No.

## CLEANING WITH REVOLVING BRUSH

Mr. Farmer: There is one more question I should like to ask in connection with the fly on the spinning frame and the question of cleaning. I understand that some mills are using a kind of revolving brush to clean the frames with. I have not seen it.

Mr. Anderson: I have had quite a bit of experience with that. We put in the long draft when I was in Georgia. We had to purchase a little portable machine that cleans the roller. We were very much pleased with it.

Mr. Stone: With the long draft the spinner is worn out all the time trying to pick off the roll. This little device, which is nothing but a little motor (not larger than your fist) and which has a little spindle out there like the spindle on a spinning frame, cleans those rolls off beautifully. Of course, it does not go down in between, but it picks off anything on top. We found that one boy can clean sixty-odd frames a day. Whether that is enough or not I do not know. So far it is very satisfactory, and the spinners are tickled to death with it. It is not very costly, either; I think the thing cost only about \$35.

## BRISTLES IN SHUTTLES

C. F. Noah, Overseer Weaving, Proximity Mfg. Co., Greensboro: I should like to know if there is anybody here that changes warp and changes the number of filling at the same time, say, five numbers. If so, do you change the bristle in the shuttle, and what effect has it on the breaking strength and on the filling breaks?

Chairman: There is a question. In changing numbers in filling, where you have a variety of numbers, what do you do so far as the bristle in the shuttle is concerned? We have a numbers of weavers here. Can anyone say anything about that?

I think, Mr. Noah, quite a little of that is left to the loom fixer. But there is quite a little behind that ques-

(Continued on Page 24)

# Termites Weaken THE HEAVIEST MILL TIMBERS

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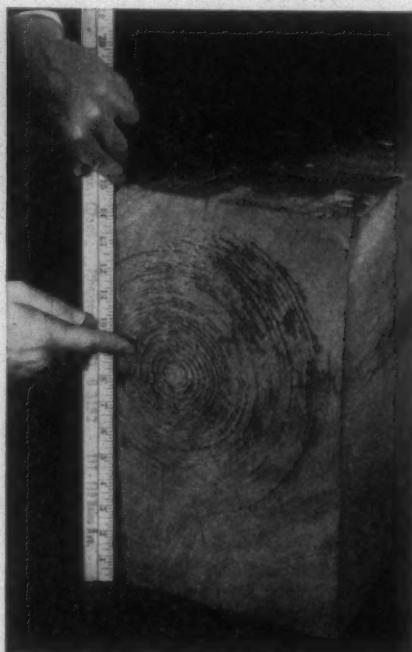
One of the most dangerous things about termite damage is that it is hidden from sight. From the outside, timbers may look perfectly sound . . . yet inside the wood thousands of termites may secretly be carrying on their destructive work. Hundreds of textile mill managers and owners do not even suspect their properties are being attacked by termites until costly damage develops.

There is only one certain way to find out whether or not the timbers and woodwork of your buildings are being attacked. Use the coupon at the right to request a skilled Terminix Inspection and a detailed report. No cost—no obligation.

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WORLD'S LARGEST TERMITE CONTROL ORGANIZATION

# Modern Group Energy Drive for Looms

**V**ICTOR A. HANSON, chief engineer for the Power Transmission Council, has made the following report on the energy drive:

"Since the last report on energy drives for X Model looms, considerable progress has been made. Production tests have been completed on the Ninety-Six Mill installation, the energy drive has been installed on X Model looms in other mills, and has been converted for application to E Model and other slower speed type looms. Every installation made has produced better than anticipated and has proved to be a worthwhile investment for the mill.

"The general advantages resulting from the test installations of the energy drive are as follows:

#### ON X MODEL LOOMS

"Makes possible the operation of the loom at any desired speed which may be considered economical.

"Smooths the loom operation, eliminating entirely the 'bump' noticeable in the lay when the loom is running.

"Makes possible a higher percentage of production than obtainable with any other type of drive.

"Reduces seconds in cloth, thereby increasing value of product.

"Utilizes modern group drive for X Model loom operation, thereby reducing the total installed cost of electrical and mechanical transmission equipment to approximately one-half that of unit drive—a saving in installation cost of about \$50 per loom.

#### ON E MODEL AND OTHER SLOW SPEED TYPE LOOMS

"Makes possible the operation of the loom at a speed at least 10 per cent higher than previously attainable with the line-shaft type of drive, thereby increasing production at least 10 per cent.

"Gives a more constant loom operation than obtainable with any other type of drive, thereby increasing the percentage of production.

"Reduces seconds in cloth, thereby increasing the value of the product.

"Eliminates the 'bump' noticeable in the lay of the loom, giving a considerably smoother operation.

"Utilizes modern group drive, thereby insuring the lowest possible power cost per yard of cloth produced.

#### WHAT THE ENERGY DRIVE IS

"The energy drive is simple in principle. It consists of a fly wheel pulley which is attached to the loom in place of the regular pulley, if the loom has been belt operated through a friction or clutch drive, or in place of the large gear if the loom has been unit operated and is being converted for group operation. To utilize the energy drive, the loom must be operated through a friction or clutch. If the loom has been T. & L. pulley operated, it can be easily converted to friction drive by purchasing the required attachments from the loom manufacturer. Detailed drawings of this equipment are now being prepared and as soon as tests are completed will be available to manufacturers desiring to make the clutch equipment as well as the fly wheel pulley.

"The X Model fly wheel pulley must be at least 14 $\frac{1}{2}$  inches in diameter and must weigh at least 88 pounds. It may be 15 $\frac{1}{8}$  inches in diameter, which will give a weight of 108 pounds.

"The E Model fly wheel pulley must be 14 $\frac{1}{2}$  inches in diameter and should weigh about 100 pounds. The fly wheel pulley for the E Model and similar type of slow speed looms is an exact duplicate of the regular pulleys employed with friction drive except that it is 14 $\frac{1}{2}$  inches in diameter and there is built into it a 3-inch rim of iron.

"The above specifications are for narrow looms (50 inches or less). For broad looms (over 50 inches) the fly wheel pulley should be larger. Space will usually permit a pulley of from 16 to 18 inches in diameter, and it should embody the 3-inch iron rim as does the fly wheel pulley for the narrow loom.

#### HOW THE ENERGY DRIVE WORKS

"The loom develops a highly varying load. The picker hits the shuttle once with each revolution of the loom pulley. This occurs during a small fraction of one revolution of the pulley, but during this occurrence the load is many times that of the load occurring during the rest of the revolution. When a loom is belt operated, this sudden shock load causes the belt to stretch slightly, and when the load is relieved the belt contracts, causing an uneven supply of power.

"When a loom is motor operated, this load variation must pass through the gear and pinion, again making it difficult to get smooth operation.

"The solution to the problem, then is obviously that of placing a supply of energy in the loom which may be called upon to furnish extra power at the moment the picker hits the shuttle, thereby relieving the transmission equipment of the sudden shock load.

"The energy drive does just that. Its fly wheel gradually stores up energy between picks, and expends it at the moment of the pick.

#### PRODUCTION TESTS

"Seventy X Model looms equipped with energy drives, and seventy X Model looms equipped with unit drives have been run on production tests at Ninety-Six Mill for eight weeks. During that time the production on each loom was taken daily and the final results were tabulated and compared. One hundred per cent production was calculated as that production which could be obtained if all looms ran all of the time. During the test period, the unit-driven looms averaged 96.85 per cent production. The energy drive equipped looms, during the same period, weaving the same cloth and operated by the same weavers and loom fixers, averaged 98.05 per cent production. This is believed to be a record unattained by any other type of drive.

"Another mill removed a motor from an X Model loom which had been operated at 183 picks per minute, weaving cloth to very fine specifications. An energy drive was installed on this loom and the speed stepped up to

(Continued on Page 22)

# The ONLY CURE for **WALL JAUNDICE**

...the **WHITE** Paint that remains **WHITE** after others turn **YELLOW**!

"**WALL JAUNDICE**"—word picture of what happens to ceilings and walls when the white paint covering them turns yellow! Their once bright surfaces take on a dingy, yellow tinge . . . light reflection dies, plant efficiency suffers.

There's only one *remedy* for jaundiced walls—another repainting. And there's only one permanent *cure*—painting with *Barreled Sunlight*.

Immune to "Wall Jaundice," Barreled Sunlight keeps its light-reflecting power, year after year. It's made with "Rice Processed" linseed oil—oil with the yellow color not "hidden" or "bleached"—but *taken out*. Your protection against yellowed plant ceilings and walls, this exclusive "Rice Process" makes possible the *Surety* shown at the right.

**VIAL A** contains refined linseed oil commonly used in white oil paints. This yellow color disappears when the oil is mixed with white pigments. But it is still there . . . will appear sooner or later in the form of "jaundice" upon your ceilings and walls.



**VIAL B** shows how the same highly refined linseed oil, as contained in vial "A," appears after treatment by the "Rice Process." It is almost pure white. This "Rice Processed" linseed oil is the principal reason why Barreled Sunlight is whiter at the start, remains white, year after year; spreads and hides better; flows more easily.

Send for free booklet detailing the outstanding features of Barreled Sunlight and listing prominent users. Write U. S. Gutta Percha Paint Co., 5-J Dudley Street, Providence, R. I. Branches or distributors in all principal cities. (For Pacific Coast, W. P. Fuller & Co.)

## YOUR SURETY

We maintain that Interior Barreled Sunlight Gloss, the "Rice Process" White, will remain white longer than any oil-gloss paint or oil enamel, domestic or foreign, when applied at the same time under normal service conditions in accordance with our specifications. If it does not do so, we will give, free, enough Barreled Sunlight to repaint the job.

# BARRELED SUNLIGHT

REG. U. S. PAT. OFF.

**THE PIONEER WHITE PAINT FOR LIGHT REFLECTION!**

# Personal News

George Frank Ivey, of Hickory, N. C., has been granted a patent on a new type yarn dyeing bobbin.

L. D. Richard, who has been overseer of cloth room at the Martel Mills, Batesburg, S. C., has accepted a position at Martinsville, Va.

J. Russell Fennell has resigned as overseer of carding at the Fort Mill plant No. 2 of Springs Cotton Mills, Fort Mill, S. C.

J. E. Sirrine, of Greenville, S. C., well known textile engineer, is to be honored on November 14th when the new municipal stadium in Greenville will be formally dedicated as "Sirrine Stadium."

Charles Jones, from the Highland Park Mills, Rock Hill, S. C., has accepted the position of overseer of carding at the Fort Mill plant No. 2 of Springs Cotton Mills, Fort Mill, S. C.

Robert E. Cilley, of Hickory, N. C., has received a patent which utilizes a brake drum on a full-fashioned knitting machine designed to prevent the machine from reversing when it stops and thereby prevent seconds caused by the reverse motion. The patent is reported by Paul B. Eaton, patent attorney of Charlotte.

Archie O. Joslin, treasurer of the Rock Hill Printing & Finishing Co., Rock Hill, S. C., and who is leaving Rock Hill to devote most of his time to the sales organization in New York, was tendered a farewell dinner in Rock Hill which was attended by more than 150 persons.

Another group from the Old Hickory (Tenn.) plants of the rayon department of E. I. du Pont de Nemours Company are en route for Argentina, where they will join R. L. Richards and his other operatives for the new rayon plant which is being established there by the du Pont organization. Among those sailing are Gene Tathwell, I. J. Alfaro and H. L. Fair. Mr. Tathwell will have a position with the production-control department, while Messrs. Fair and Alfaro will be associated with the operating department.

John G. Webb has been appointed Southern representative for The L. M. Hartson Company, of Morth Windham, Conn., manufacturers of Lucas Underclearer Rolls, textile porcelains, flyers, bobbins, tubes, quills, lingos for jacquard looms, and other supplies.

Mr. Webb is a son of T. H. Webb, past president of the American Cotton Manufacturers' Association, and is widely known to the Southern textile trade. He will make his headquarters in Hillsboro and Concord, N. C.



## Mill Men Worth Knowing

A series of pictures taken by representatives of The *Textile Bulletin*



KEY MEN AT ALABAMA MILLS, Wetumpka, Ala.

Front Row, Left to Right—Mr. McCuen, master mechanic; V. E. Fisher, overseer spinning. Back Row—T. J. Oliver, superintendent; Lee C. Francis, overseer cloth room; H. W. McJunkin, dyer, and A. L. Patterson, weaver.

## Plans for North Carolina Meeting

Plans for the thirtieth annual convention of the North Carolina Cotton Manufacturers' Association, to be held at Carolina Hotel, Pinehurst, N. C., on November 5th and 6th, as previously announced, are being prepared by President Harvey W. Moore and Secretary Hunter Marshall, Jr.

The board of directors will meet on Thursday morning, November 5th, the golf tournament will be played that afternoon and the annual banquet will be served that night.

The regular business session will be held on the morning of the 6th.

An unusually large crowd is expected. Further details of the program will be announced soon.

## Mr. and Mrs. Poovey Entertain

M. T. Poovey, superintendent of the Hannah Pickett Mills, Rockingham, N. C., and Mrs. Poovey were hosts last Thursday evening at an elaborate dinner given to the mill officials of Rockingham, their wives, and a number of other invited guests.

Dinner was served in the Community House of the Hannah Pickett Mills and was followed by a bridge party for the ladies and a setback party for the men in the recreation room of the building. Thirty-four guests were present. Prize for high score in setback went to W. B. Cole and in bridge to Miss Elizabeth Cole.

Guests of Mr. and Mrs. Poovey included W. H. Entwistle, vice-president and general manager of the Entwistle Mfg. Co., and Mrs. Entwistle; George P. Entwistle

tle, president and treasurer of Entwistle Mfg. Co., and Mrs. Entwistle; H. B. Steadman, treasurer of Pee Dee Mfg. Co., and Mrs. Steadman; John W. Porter, president and treasurer of Steel's Mills, and Mrs. Porter; Jas. W. McKenzie, secretary of Steel's Mills, and Mrs. McKenzie; W. B. Cole, president Hannah Pickett Mills; Robt. L. Cole, treasurer Hannah Pickett Mills; Alex S. Monroe, Sr., secretary Hannah Pickett Mills; R. C. Heyward, superintendent Entwistle No. 1 Mills, and Mrs. Heyward; John A. McFalls, superintendent Entwistle Mills 2 and 3, and Mrs. McFalls; H. B. Miller, superintendent Pee Dee Mills Nos. 1 and 2, and Mrs. Miller; D. L. Culbertson, superintendent Ledbetter Mills, and Mrs. Culberson; J. G. Garrett, superintendent Steel's Mills, and Mrs. Garrett; J. H. Arthur, accountant Hannah Pickett Mills, Miss Elizabeth Cole, of the Hannah Pickett office.

Other guests included Mr. and Mrs. A. G. Corpeling, Mr. and Mrs. T. C. Covington, Mrs. Sadie Leak, and Mrs. A. B. Brannon.

### Institute To Have Washington Office

The Cotton-Textile Institute will open branch offices at Washington before the first of the year, President Murchison announces. The principal offices will be continued in New York, and a small staff maintained at Washington.

The Washington office is expected to aid the facilities of the Institute in keeping closely in contact with various government activities affecting the industry and to provide quarters for meetings of various mill groups who are frequently in Washington.

### Cutler To Have Southern Office

Roger W. Cutler, of Boston, manufacturer of textile rolls and covers, will open a Southern office in the Woodside Building, Greenville, S. C., about November 1st. Mr. Cutler will be manager of the office and during his absence Lewis C. Briggs, III, will manage the Boston office.

Mr. Cutler states that his company has arrived at a standard white and a standard black "Everlastic" roll which is claimed not to lap up nor gouge and to have a pleasant odor and long life. Mr. Cutler reports that rolls in Southern mills have gone over 5,000 hours without re-buffing. His company also makes temple rolls and take-up rolls.

### Plan Textile Engineering Course in Spartanburg

Spartanburg, S. C.—A course in textile engineering will be added at the Textile Junior College here with the beginning of the 1936-1937 session, Dr. R. B. Burgess, president, makes known.

The course will be offered at night and will be open to anyone in the mills of the Spartanburg area. Efforts are being made to secure a member of the faculty of the textile department of Clemson or some other college with a textile school.



## Management Talk No. 2

Supt.: "I have a complete report from Terrell Machine Company's representative who recently looked over our bobbin cleaning job. It is extremely interesting."

Mgr.: "What does he recommend?"

Supt.: "He says that if we install the latest Type K with a hoist we would save \$1,200.00 a year in labor alone."

Mgr.: "That is interesting. But how can it do that?"

Supt.: "Well, you see, with our old Utsman machine we use two operators on each shift. One man operates the machine and the other lays quills up on the hopper for the operator, picks out pieces of waste going into the box of cleaned quills, and moves the full box of cleaned bobbins a few feet away from the machine. With the New Type K, equipped with a hoist to lift the filling boxes and dump the bobbins into the hopper, one man on each shift can easily handle the entire job."

"And that is not all. There will be added savings in low upkeep cost, less damage to bobbins, and less time being required to keep the machine in operating condition."

Mgr.: "But what about the cost of this new machine? Here it is. Why the savings you mentioned show a 70% yearly return on the investment!"

"Miss Smith, phone the Terrell representative to come over. I'm ready to give him an order."

*The above conversation, while written in fiction style, is based upon an actual investigation. It is quite possible that similar savings can be made in your mill. Let us look over your job.*

### *the new TYPE K Bobbin Stripper*

## The Terrell Machine Co., Inc.

1200 North Church Street

CHARLOTTE, NORTH CAROLINA

MR. LUTHER PILLING, Danielson, Connecticut, Representative for  
N. Y., N. J., Pa., New England States, and Canada

GEO. THOMAS & CO., LTD., Manchester, England, European Agents

# Programs for S.T.A. Division Meetings

**D**ETAILS for several coming meetings of the technical Divisions of the Southern Textile Association are as follows:

## SOUTH CAROLINA CARDERS AND SPINNERS

The Carders' Division and South Carolina Spinners' Division will hold a joint meeting at the Franklin Hotel, Spartanburg, S. C., on Saturday, October 10th, at 9:30 a. m. Members are urged to be on time.

J. O. Corn will conduct the discussion on carding and Joe C. Cobb will lead the discussion on spinning. Questions for discussion have already been published.

## MASTER MECHANICS' DIVISION

The Master Mechanics' Division, of which L. M. Kincaid, of Kendall Mills, Paw Creek, N. C., is chairman, will meet at the Franklin Hotel, Spartanburg, S. C., on Friday morning, October 23rd, at 10 o'clock.

The following questions are to be discussed:

1. What is your idea of a good standard speed for shaft in the mill?
2. Why do cold rolled shafts break apparently without cause?
3. Does anyone have group drives, also individual drives that can give us accurate figures as to comparative costs in power and repair?
4. Does installing meters in your different departments show any worthwhile savings? If so, how much?
5. Has anyone experienced any trouble with internal resistance type motors changing over to squirrel cage? If so, how did you correct your trouble?
6. What is the best method stopping some of the older type motors throwing oil?
7. What increase in temperature of motors would we have with a motor running without any lateral play?
8. Are you afraid to air out your troubles with your boss?
9. Don't you think knowing the likes and dislikes of our boss helps us a lot in properly maintaining our respective plants?
10. Has anyone had the experience of changing, say, loom type motors from 220 volts to 550 volts?
11. Have you observed that room temperature affects your power consumption? And how much?
12. What method do you consider best to liberate free oxygen in your return lines? Also boilers especially when boiler has been down and you are putting same back in service?
13. Have you been benefited directly or indirectly through your connection with the Association?
14. Election of officers.

## EASTERN CAROLINA DIVISION

The Eastern Carolina Division is to meet at the Erwin Mills Auditorium, West Durham, N. C., on Saturday morning, October 31st, at 10 o'clock. Chairman P. B.

Parks, Jr., states that the meeting will begin exactly on time and will adjourn promptly at 12 o'clock.

The subject for discussion will be "Larger Packages" and will cover every process from picking through weaving. The discussion will cover not only the value of the larger packages, but how to obtain the maximum package on existing equipment.

Mr. Parks requests that each superintendent or spinner bring to the meeting his largest full warp bobbin and filling quill, in order that the comparative sizes of the packages can be seen, as well as talked about.

## TENNESSEE DIVISION

The Tennessee Division will meet Saturday morning, November 7th, at 10 o'clock, at the Andrew Johnson Hotel, Knoxville. The session will be followed by a luncheon at 1 p. m.

B. W. Bingham, chairman, and the executive committee, have prepared the following questions on opening, picking, carding, spinning, warping and weaving for discussion at the meeting:

What is the best setting for opening and picking machinery on the various staples of cotton?

How did you determine these settings in view of the least amount of injury to the cotton but with maximum amount of cleaning and preparation for the card?

Is it advisable to run humidity in the picker room?

What are the advantages of oil spraying? Where is the best place to apply the oil?

What variations in a lap are justifiable? How do you know? Have you made any tests to determine them?

On a card what settings will cause weak and uneven yarn? What setting will benefit yarn and improve breaking strength? How would you determine the correct setting?

How do you determine the correct twist for roving in order to get the best breaking strength and good running work?

How do you determine the best roll setting on roving frames to get the best possible breaking strength in your yarn?

What difference do you find in yarn made from cork rolls on the slubbers-intermediates-speeders over leather rolls? Does cork give on an average more even yarn the year around?

When your spinning is running badly how do you determine the factors causing the trouble?

In spooling and warping what system of cleaning are you using to prevent loose lint and fly getting on yarn in the section beams?

What per cent of relative humidity should be maintained to get good running weaving on high sley broadcloths, print cloths, fine lawns?

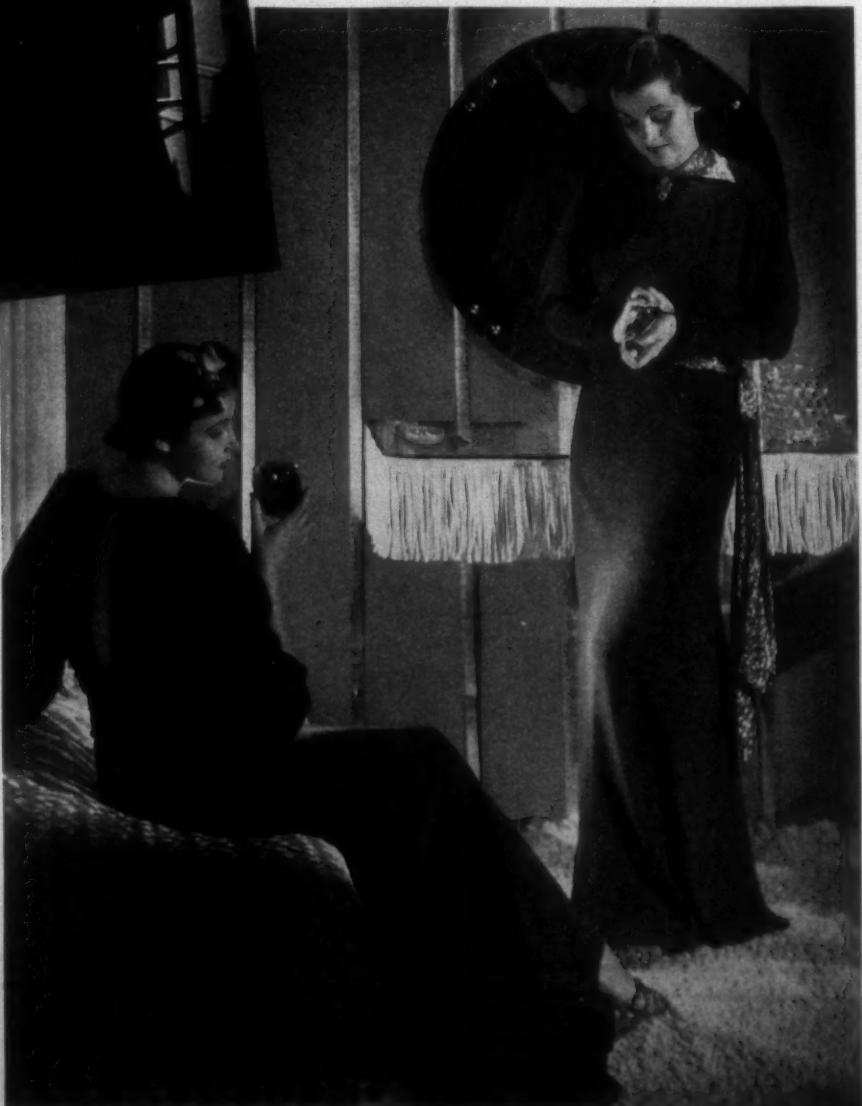
What are the causes of jerked in or whipped in filling?



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# TEXTILE BULLETIN

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## The Cotton Situation

**T**HIS is written prior to the October 8th cotton estimate and we, therefore, do not know whether it will be 11,100,000, 11,300,000 or 11,600,000, nor do we think that it will make much difference or very greatly affect the price.

The vital question today is the world's consumption of cotton and it is our opinion that consumption rather than production will influence prices.

The New York Cotton Exchange Service recently placed the cotton consumption of the world for the year ending July 31st, 1936, at the record-breaking figure of 27,729,000 bales, which was far above the figures for any past season. It was 1,951,000 bales higher than the previous high of 1928-29, which was 25,778,000 bales.

The World Cotton Consumption of recent years has been as follows:

(000s omitted)

	U. S.	Elsewhere	Total
1926-27	7,190	18,489	25,679
1927-28	6,834	18,608	25,442
1928-29	7,091	18,687	25,778
1929-30	6,106	18,769	24,875
1930-31	5,263	17,164	22,427
1931-32	4,866	18,015	22,881
1932-33	6,137	18,513	24,650
1933-34	5,700	19,896	25,596
1934-35	5,361	19,964	25,325
1935-36	6,352	21,377	27,729

These figures show that the consumption of cotton outside the United States held very steady from 1926 to 1933 and that since then it has increased to a much greater extent in foreign countries than in the United States.

Certainly consumption outside the United States can not be credited to the New Deal and the failure of consumption in this country to advance as rapidly as that in foreign countries lends some support to those who charge that the New Deal has retarded our recovery.

We are, however, at this time considering cotton, not politics, and wish to draw attention to the fact that the world consumption of cotton, outside the United States, which is normally 18,600,000 bales, has suddenly jumped to 21,377,000.

There may be some reduction in the amount of cotton consumed in Spain, where about 400,000 bales are used annually, but we see no reason to anticipate any less world consumption than during the past year, and there are many reasons for anticipating a greater consumption outside the United States.

If consumption outside the United States remains at 21,377,000 bales, there is certain to be a higher world consumption because there is every reason to believe that there will be an increase in this country.

Cotton consumption, in the United States, during the past year was as follows:

	1935-36	1936-37
August	408,410	574,289
September	449,126	
October	552,187	
November	507,836	
December	498,329	
January	591,309	
February	516,649	
March	548,913	
April	576,672	
May	530,799	
June	556,323	
July	603,203	
Total	6,352,000	?

During August, 1936, our consumption was 165,879 bales more than during August, 1935, and there is reason to believe that there was almost as great an increase in September.

With mills already sold ahead for three to six months, an excellent consumption is assured for the first half of the year and we place American consumption at 700,000 bales greater than during 1935-36.

If foreign consumption remains at 21,377,000 bales and American consumption increases 700,000 bales, there will be a total world consumption of 28,600,000.

With reasonable assurance that the cotton

mills of the world will consume 28,600,000 bales from August 1st, 1936, to July 31st, 1937, it is well to study the possible production of cotton during that period.

The greatest world production of cotton was in 1926-27 when 27,819,000 bales were produced, but that included 17,755,000 in the United States and 10,064,000 in other countries.

Since that year the production of foreign cottons has increased, but American production has been so much reduced that the world production has not approached the world record.

Cotton Production in 478 lb. bales in countries reporting with comparison in thousands (000s omitted. United States total in running bales. (Census Bureau.)

	1930-	1931-	1932-	1933-	1934	1935-
United States	31	32	33	34	35	36
India	13,756	16,629	12,710	12,670	9,472	10,420
Egypt	4,800	3,375	4,440	4,000	4,475	5,500
China	1,661	1,288	1,005	1,819	1,566	1,743
Russia	1,590	1,100	1,880	2,500	2,150	1,767
Brazil	1,550	1,850	1,778	1,800	1,673	2,250
Mexico	493	525	347	472	1,332	1,743
Peru	169	207	95	223	223	250
All others	240	205	210	200	342	385
Total	1,045	1,150	1,169	1,309	1,709	1,964
	25,304	26,329	23,634	24,993	22,942	26,481

Brazil may make a further increase in its production, but there is no reason to expect that it will be very great.

Any increase in the Russian crop is almost certain to result in an equal increase in consumption.

The world carryover of American cotton on July 31st, 1936, was 6,962,000 bales and that is almost certain to be sharply reduced this year.

The world carryover of foreign cotton on July 31st, 1936, was 6,111,000, giving a total world carryover of 13,073,000 bales.

To some extent foreign cottons can be substituted for American cotton, but most of the foreign cottons are inferior in staple and for many purposes, especially when the amount of production is important, foreign spinners will seek the American cotton even though the price be higher.

The Government of the United States controls approximately 3,000,000 bales of American cotton and are pledged not to sell same until next spring. That is a factor of strength.

A weakness which may develop and which should be carefully watched is that a higher price for cotton may be the signal for the Southern farmers to greatly increase the 1937 acreage.

For the present, however, the consumption of cotton and particularly the world consumption is a matter of much greater importance than the size of the 1936 cotton crop.

There are many indications that both in the United States and abroad the consumption of cotton will break all records.

## A "Pollyana" Market

ONE of our friends, writing to us from the New York market, described the cotton situation in such glowing terms that he concluded with the statement, "This all sounds like Pollyana stuff, but it is true."

The same might be said of the bright market picture painted by Mr. Carlisle in his article on Page 3 of this issue. It really sounds too good to be true, but facts are facts, even though it may be a little hard for many of us to believe that the cotton mills are again enjoying such an excellent business.

All of the market reports continue distinctly on the cheerful side. Last week's business in gray goods ran to more than one hundred and sixty million yards, with indications that all of the buying is not yet done.

Prices have improved to a marked extent. Mills are again earning profits. They are assured of steady operations for week and weeks to come and altogether, the whole situation is better than it has been for years and years.

The present market is being compared with that of 1929, but in our opinion, is better, certainly more sound.

The present outlook appears to be an answer to the dreams that mill men have been having for some years past.

## Three Governments in Union

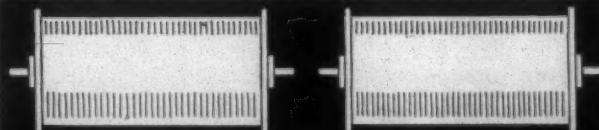
THE following editorial from the *Charleston News and Courier* will doubtless strike a responsive chord among mill men:

In Union, South Carolina, last Monday three governments were struggling to settle the question whether a man should work in a cotton mill or the mill should close. The Union county government sent the United States government to jail, and the State government of South Carolina was rushing madly to the scene with an olive branch in its mouth. The *News and Courier* proposed two years ago or more that the United States should buy a few cotton mills with money from the "relief" funds, present them to cotton mill operatives and give them a chance to demonstrate that they can run mills better than they have been run before. We now renew it and urge that the South Carolina government join teams with the Federal government to purchase the Monarch Mills for the people. The only possible objection to the scheme is that it would diminish the opportunity of the Federal and State Labor Departments to prove the indispensability of their labors. The *News and Courier* is opposed to any move that would tend to threaten any officeholder with the loss of his job. As for the conflict between the Union county government and the government of the United States, it should be referred to the League of Nations. The ailment of this country is that it has not enough officeholders, county, State, or Federal, to solve its problems.



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## Mill News Items

REMERTON, Ga.—The Strickland Cotton Mills has started work on the installation of new equipment. Included in the machinery already installed are 45 Saco-Lowell spinning frames, two Saco-Lowell slubbers and a slasher. Three additional slubbers are being installed. These mills are engaged in the manufacture of narrow sheetings.

KNOXVILLE, TENN.—A new hosiery mill is to be opened in the Highland Park suburb of Kingsport. Repairs and improvements are being made to a plant there formerly occupied by the Kingsport Silk Mill.

New machinery has been ordered, according to C. F. Rogers, an official of the new industry. Machinery used by the silk mill has been stored.

YADKIN, N. C.—The contracting firm of Potter & Shackelford, Inc., of Greenville, has been awarded the contract for construction of a \$45,000 addition to the North Carolina Finishing Corporation. The addition will be two stories high and will be used partially for storage and some equipment will be put in operation here.

LINDALE, Ga.—Capt. H. P. Meikleham, agent for the Pepperell Mills, announced that the wages of the 2,800 employees of the local plant would be increased 5 per cent to "re-establish the scale before the cut last winter." He announced goods produced in the local plant have been sold through December 15th, and goods being sold now are for January, February and March, 1937.

LAGRANGE, GA.—To all of its 5,000 operatives, the Callaway Mills, operating a number of units here and in other cities, announce that base rates of pay will be guaranteed. This is understood to mean that there would be no deductions in wages for less than normal output per operative, and that those whose output is higher would receive bonuses. The management refused to estimate the probable increase in weekly wages.

WEST POINT, GA.—About 7,000 employees of the West Point Manufacturing Company have been advised of a 5 per cent boost in their wages, and a similar announcement was made at the Dixie Mill in LaGrange.

The Lanett Bleachery and Dye Works at West Point joined the 5 per cent increase list. It employs about 500 persons.

HICKORY, N. C.—Sterling Knitting Mills, Inc., which company was recently issued a charter, will start operations in about two weeks, it is stated by Sterling F. Menzies, secretary, treasurer and general manager of the new company. The capital stock of the new corporation is \$100,000. Donald Menzies is president and J. J. Dell, vice-president.

It is stated that the new corporation will manufacture some specialty lines not being made now in Hickory.

The mill will be located in a 50 by 100-foot room of the warehouse building, near Tenth street.

# Mill News Items

MARIETTA, GA.—Preliminary work on the \$50,000 distribution depot for the Holeproof Hosiery Company of Milwaukee, Wis., began Friday on Rose Lane street. The structure will be two stories of brick and steel and contain 26,000 square feet of floor space. It is adjacent to the Champion Knitting Mills plant, with which the Milwaukee concern is connected. Holeproof will use the new unit for distributing men's hosiery to all points. Space will be reserved in the new depot for an experimental and research department.

DOUGLASSVILLE, GA.—The new Douglassville Hosiery Mill building has been leased by representatives of a manufacturing company, the name of which is being withheld by the Civitan Club, which is securing the new hosiery mill.

The lease is coincident with an agreement to begin production October 15th, provided citizens meet requirements of the manufacturers. Final details are in the hands of W. S. O'Neal, W. J. Dozier, J. O. Sayer, Astor Merritt, R. D. Pound, W. P. Muse and Arthur King.

LANGDALE, ALA.—Langdale is to have a new \$40,000 auditorium, the contract for the building having been let by the West Point Manufacturing Company to Batson-Cook, contractors in West Point. The building will be air conditioned, and modern in every particular. The seating capacity will be 750. This building, to be connected to the new Lafayette Lanier High School by a cloister, is another unit in the Langdale Memorial that is being built in honor of the late L. Lanier. The auditorium will be completed by January 1st.

CHATTANOOGA, TENN.—A new hosiery mill, employing some 25 workers at the start, opened here.

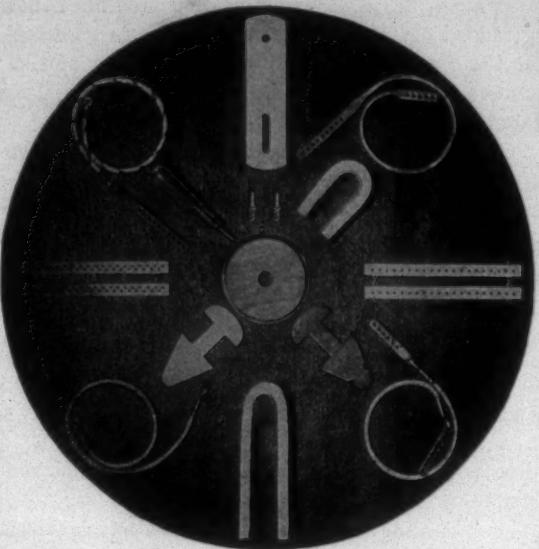
Dan Boone, formerly assistant secretary-treasurer of the Cherokee Mill at Cleveland, and O. N. Norris, formerly president of the Quality Hosiery Mills at Murfreesboro, are operating the new enterprise.

The new mill is located in the one-story structure formerly occupied by the Ray-Ser Dyeing Company. It is equipped with modern machinery, Mr. Norris said.

The product, a fine gauge of infants' and misses' anklets, will be sold in Chattanooga and New York, Mr. Boone made known.

LEAKSVILLE, N. C.—Construction work has begun on an addition to the bedspread mill of the Carolina Cotton and Woolen Mills Company, textile division of Marshall Field & Co., here, according to L. H. Hodges, production manager, who said the addition is being built for the purpose of consolidating this mill, a portion of which is now operated on the lower floor of the Karastan Rug Mill of the company. This move will also give the rug mill additional room for much needed rearrangement and improvement, Mr. Hodges said.

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# Mill News Items

TUCAPAU, S. C.—A modernization program is now being carried out at Tucapau, which, when completed, will give the Startex Manufacturing Company a smaller but far more modern plant than its predecessor, the Tucapau Manufacturing Company.

President Walter S. Montgomery, making known the improvement program, said that the plant is now operating on a curtailed day shift of 300 employees, due to the installations and other work. Resumption of normal operating schedules will be gradual, beginning around November 1st, he said.

Major improvements being made include:

The discarding of the entire complement of 65,000 spindles in the print cloth mill, which are being replaced by 45,000 spindles, including new speed, long draft spinning.

Replacing of spooling and warping equipment and the installation of new drawing frames.

The discarding of about 1,000 narrow looms, which are being replaced with modern equipment, the mill to have about 1,600 modern looms when the work is completed.

Installation of a modern blending system in the opening room and concentration of pickers into an improved one-process system.

Building up of hydro-electric system from 40 to 60 cycles.

The addition of 44 looms in the crash mill, which was completed in 1924 and is now one of the most modern in the State. The crash mill is a separate unit and employs the cotton waste system, using double carding.

Installation of modern air-conditioning, humidifying the thermostat-controlled heating in the mill plant.

Installation of a modern water system for the entire village, including five miles of new mains and a 500,000-gallon storage tank with water connections for all houses.

Reroofing and other repairs for approximately 240 houses in the village.

Remodeling of the mill store with plans to place the community clinic in the present office building and move the mill offices to the remodeled store building.

The Fiske-Carter Construction Company has been awarded contracts for reroofing the houses, making other repairs to them and installing the water system, excepting the storage tank, which will be installed by the R. D. Cole Company of Newnan, Ga., which installed the huge storage tank for the City of Spartanburg, completed last year.

The Southern Spindle & Flyer Co. of Charlotte, the Saco-Lowell Shops of Biddeford, Me., and the Whitin Machine Works of Whitinsville, Mass., are installing spindles and some other equipment.

Automatic spooling and warping equipment is being installed by Barber-Colman of Rockford, Ill. The Saco-Lowell Shops are installing the long draft spinning equipment, and Casablanca roving frames are being installed by the Whitin Machine Works.

Concentration of the pickers into a one-process system is being done by Aldridge Machine Company of Greenwood.

All frames are to have individual motor drives.

Lockwood-Greene Company are consulting engineers for the modernization project.

Junked equipment from the plant is being sold at \$5 a ton.

## Modern Group Energy Drive for Looms

(Continued from Page 12)

196 p.p.m., with a resulting operation that was more constant than ever before, and a noticeable reduction in seconds.

"A number of mills have installed energy drives on E Model looms, and in every case loom speeds have been increased from 155 to 160 p.p.m. to 175 to 180 p.p.m., with resulting increased in actual production obtained ranging from 10 per cent up to 19 per cent. To date, 26 mills have installed or have ordered and are installing energy drives. Among these mills are:

"Ninety-Six Mills, Covington Mills, Georgia Kincaid Mills, Bemis Bag Co., American Spinning Mills, Avondale Mills, Callaway Mills, Trion Co., Werthan Bag Corp., Florence Cotton Mills, Martel Mills Corp., Jefferson Mills, Merrimack Mfg. Co., Rushton Cotton Mills, Swift Mfg. Co., Muscogee Mfg. Co., Wellington Mills, Houston Textile Mills, Mexia Textile Mills, Aragon-Baldwin Cotton Mills, Dixie Cotton Mills, Manville-Jenckes.

## Obsolete Equipment and Methods Cause Failure of Many Mills

(Continued from Page 4)

apathy on the part of the key men, but it is also due to the fear that changes will be resented by labor. I can sympathize with this fear. But on the other hand, I believe that if properly handled, this difficulty can be overcome. The people who work for you now are intelligent, and I am sure that most of them are reasonable, and it seems to me that if they are properly approached, they will be perfectly willing to co-operate with you in putting into effect anything that will tend to help the ill; just as long as they feel that the change will not work an undue hardship upon them. As I see it, the main reason for resisting newer methods on the part of the employees is the fact that they feel that their wages will be reduced or their jobs made unreasonably difficult. If the right attitude exists between you and your employees, I see no reason why a change for the better cannot be arranged.

I think it is extremely important for the employees to be informed as to the reason for any change, and what it will do to them in the nature of future wages or job assignments, and it is my opinion that if both of these questions are thoroughly understood between you and your men, 90 per cent of the causes of dissatisfaction will be eliminated, and you will be able to put across your ideas without any difficulty.

These newer mills are going to be built and these newer methods are going to be put into effect, and it is a very serious question for all of us who are engaged in this industry to decide: Are we going to be satisfied with our

old methods until we are forced out of the picture, or, are we going to use the experience which we have gained over years of practical application and combine it with the newer technique, and by a combination of the two ideas make our plants as efficient as possible?

I was reading the *Daily News Record* of New York on Thursday and came across the following article which struck me as quite significant:

"Amory Coolidge, vice-president of the Pepperell Manufacturing Company, and Davis S. Cook, agent of the company's division in Biddeford, Me., inspected No. 11 and Coolidge Mills of the Amoskeag Manufacturing Company here, today, and stated that the two mills and the nearby warehouses with sidings would be ideal for removal of their Biddeford plant.

"The Pepperell officials were accompanied on their inspection by Col. W. Parker Straw, one of the liquidating trustees, and Arthur E. Moreau, president of Amoskeag Industries, Inc., which will acquire the mills on October 15th. Mr. Coolidge is the grandson of T. Jefferson Coolidge, former Amoskeag official after whom Coolidge Mill was named."

Here is an old but aggressive textile concern figuring on purchasing part of the Amoskeag property. They would not be interested unless they thought they could run it successfully. If Pepperell can move down there from Biddeford, Me., and run one of the old Amoskeag plants successfully, why couldn't the old Amoskeag management have done the same thing? I don't know the answer, but I think I could make a pretty good guess.

### Cotton Mills Position Best Since 1929

(Continued from Page 3)

ahead and buyers now in the market for December deliveries against January white sale needs find the supplies for that shipment position scarce. Towels are also strongly sold. Trading in bedspreads has continued active, both in the candlewick and jacquard divisions.

#### CONVERTERS AND PRINTERS MAKING MONEY

Converters and printers are making money and their prospects for the next several months are excellent. Percales are selling at firm list prices, and new advances are expected about the second week in October. Printed carded broadcloths are in active demand and buyers of the gray goods have been pressing mills for early deliveries. Plain whites and solid colors also are active in the broadcloth division.

The curtain goods markets are in exceptionally good shape. On all but the standard low-end plain marquises, gray mills are sold far ahead and have insufficient equipment to meet the insistent demand for goods. Most mills making clipped spots, cushion dots and similar goods are sold solidly through the end of the year. There is an actual shortage of box loom equipment for either curtain goods or other production. Some few mills, especially in the East, have held back on their sales of box loom goods since it became apparent that this shortage was going to develop. Now they are in a position to choose which cloths they will make, and naturally are choosing those on which profit possibilities are best. The result is that many buyers have been scouring the market

for some mill to make goods they know they could sell at a profit, but have been only partially successful.

Handkerchief cloths in the colored woven divisions are strong, but in the staple whites are meeting severe competition from Japanese producers. A number of the larger handkerchief manufacturers, including some who had been among the foremost of the agitators for more adequate protection from Japanese imports, have been forced by competition to buy Japanese goods or go out of business.

The almost unbroken story of improvement in all cotton goods lines has caused some in the markets to fear that the industry is "riding for a fall." Many who held this opinion a month or two ago have changed their minds. Whatever increases in production may be possible from the current levels will be small, they insist, and the continued good demand indicates that it will be a long time before stocks begin to pile up in the hands of mills. A few large distributing organizations, however, are proceeding with caution, fearing some recession in the volume of public buying after the first of the year.

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## From MAINE to NOVEMBER

...what are your plans?

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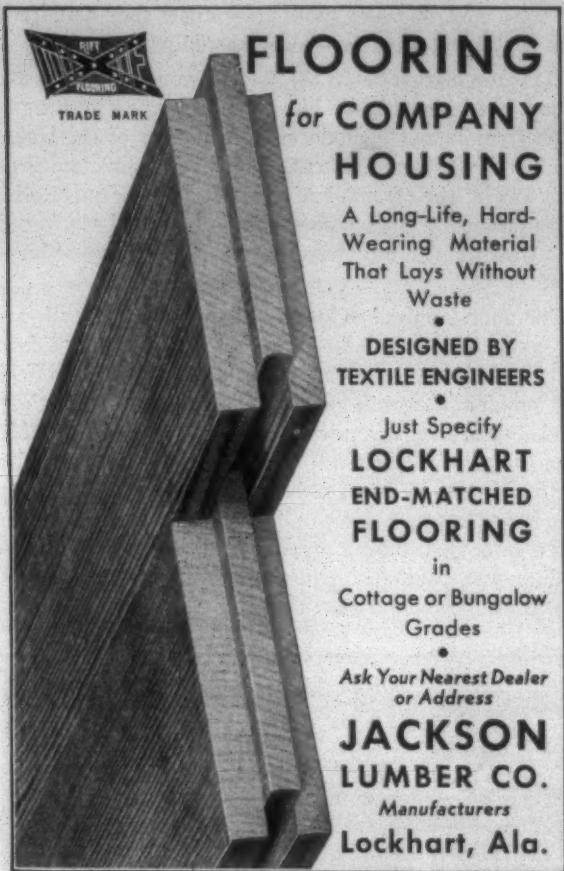
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## Interesting Discussion At Greensboro Meeting

(Continued from Page 11)

tion. What is your method there?

Mr. Noah: Well, I do the best I can.

Chairman: You do actually change the bristles?

Mr. Noah: In changing warps as often as we do we can not change the bristles every time. But sometimes we actually do have to change our bristles. I was anxious to find out what the other fellows do. If you put on a warp running, say, 13s filling, with the shuttle bristle on that to keep it from falling, and then put on 18s filling, do you change the bristle?

W. E. Gammon, Overseer Weaving, Riverside Cotton Mills, Danville, Va.: Where you have an extreme variation in numbers there, you would naturally have to lighten up on your bristle. I also would suggest that you run as light bristle as possible all the time, just whatever is necessary to keep down the balloon.

My experience in buying shuttles already bristled is that they are not very satisfactory, and we are doing quite a bit of bristling ourselves. We like to get as good bristle as we can.

Mr. Noah: If your warp runs out every five to seven days, do you change that bristle every time you change the warp?

Mr. Gammon: No, sir.

Mr. Craven: I guess we all have about the same experience. In regard to this question about bristling shuttles, I have never had to change bristles in changing from one number of filling to another. It depends more on the kind of filling. If you were running 18s filling with hard twist and were to make coarser filling with soft twist you would have to do something about it. But as long as you are running about the same twist in the filling you would not have to do anything about it. But you would have to do this; you would have to pay attention to the check and the power of the loom; that would have more to do with it than anything else. I do not think, aside from that, you would have to bother about it.

### FLY IN WEAVE ROOM

Now, there has been quite a lot of discussion about fly and different things in connection with long draft. I should like to know what you do about fly in the weave room.

D. F. Short, Lynchburg, Va.: I was in a mill a few days ago where they seemed to have an excessive amount of loom stoppage. I asked the man what he thought the trouble was. He said it was gouts. I asked him where they got the gouts, and he said he thought they came from the cans on the high speed warper. They have the fan system of cleaning, and I think their cans stand about sixteen or eighteen hours. Practically every can, especially on the bottom part of the high speed warper, has a good settling of the fly there, and he has bad gouts. How can you keep those cans clean, or how can they be cleaned properly?

Mr. Craven: We have just installed high speed warpers. We have a cleaning system and have not had any trouble.

Mr. Scott: Our cans stay in the creel probably around two and a half hours, and our cleaning system seems to take care of that pretty well. We have an automatic cleaner going over it, with a trailer. The cleaner goes over it; then the trailer comes along, and that has a narrow opening in it, and that blows that fly out.

Mr. Short: In installing a new warping system, would it be a good idea to partition the warpers from the spoolers or to have them in one large room?

Chairman: Of course, on the high speed spooling, the automatic spooling, there is quite a large accumulation of lint. The lint is flying in the air, and you get quite an accumulation from the high speed, too.

Has anyone put up a partition between the spooling and warping?

We have the spooling and warping close together, and draw a sheet between the individual warpers on cleaning. We blow off at the end of each creel and also draw a sheet across the warper to protect the warper from the lint from the spoolers. That is all that I have seen. In other words, we have a wire strung across from warper to warper and use a piece of sheeting to confine the lint in cleaning as much as possible. But as to putting a partition between the warpers and spoolers, I don't know. Of course, it would be advisable, if you could have it.

Mr. Craven: We do not have ours partitioned off. That would depend on how close the spooler is to the warper. Unless it is very close I think it would not be necessary.

There is one thing I do have in mind to do and that is necessary to do. I am speaking now of the creel with the overhead cleaner. Without the overhead cleaner I don't know what you would do. But with the overhead cleaning the air comes right down by the creeler and blows it out on the floor. Just take a 12-inch high board and put it in there, and I think it will meet the difficulty all right.

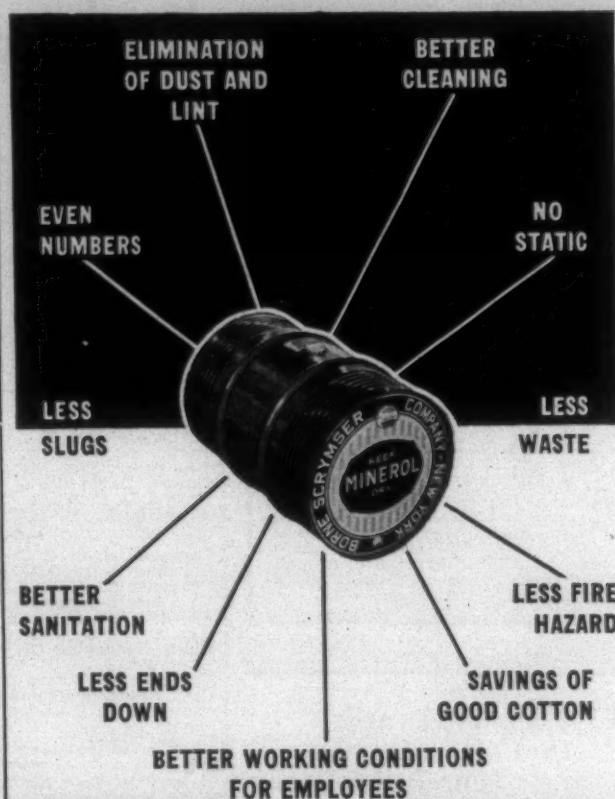
Mr. Anderson: I have had the pleasure of seeing the vacuum cleaning system work around some of the Barber-Colman spoolers and warpers, and it works very satisfactorily. It has what is known as a dust chamber. It is quite surprising to see how fast this dust chamber fills up.

#### THE ARKWRIGHTS

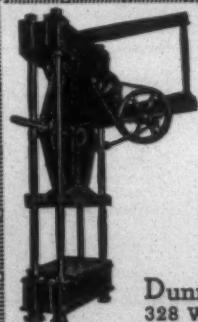
Mr. Batson: I should like to have just a minute. Sponsored by the Southern Textile Association is a research organization known as The Arkwrights. They have given me the job of chairman of the research committee. So far I have not had very much work to do, for the simple reason that very few tests have been submitted to us to be passed on. Mr. Hill is secretary of The Arkwrights and can give you complete information as to how to become a member. At present we have just thirty-six or thirty-eight mill men who are members. To qualify for membership you have to submit a test on some really live and practical question. We should like to see more mill men in the South become members. It can be made a very serviceable institution to the industry. We should like to have the mill men get in touch with the officials of The Arkwrights and make application for membership and make real tests on some of these questions that come up at each meeting. Last year we had some tests made by seniors in the textile schools, which will probably be published in the near future. We have also recently had a test made by a very prominent mill executive on a question of real importance. There are supposed to be three grades. The first is the first test you make, in qualifying for membership. A man indicates by making that test that he is really interested and goes ahead and makes more tests along the same or on another line.

It is an organization that can be of great service to mill men, and we should like to see some of you become interested in it.

The meeting then adjourned.



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### WPA Makes Awards On Cotton Textiles For Relief Rooms

Washington.—Awards for furnishing cotton textiles to the Works Progress Administration for distribution to emergency work relief rooms throughout the United States, on which bids were opened at the Procurement Division, Treasury Department, September 21st, were made known as follows:

Invitation 230-T: Outing flannel, 3.5 ounce, 36-inch, Batavia Mills, 20,000 yards; Brown Mfg. Co., 1,300,000 yards; Cone Export & Commission Co., 434,400 yards; Edwards Mfg. Co., 750,000 yards; 32-inch, Batavia Mills, 669,000 yards; Brown Mfg. Co., 500,000 yards; Cannon Mills, 824,000 yards; 27-inch, Royal F. Spatz, 300,000 yards.

Invitation 231-T: Huck toweling, Batavia Mills, 101,000 yards.

Invitation 232-T: Terry toweling, Cone Export & Commission Co., 207,500 yards.

Invitation 233-T: Pajama checks, bleached, 88x82, Batavia Mills, 280,000 yards; Carnac Cottons, 75,000 yards; Federated Textiles, Inc., 100,000 yards; S. B. Marks, 100,000 yards.

### West Point Aids Textile Schools

West Point, Ga.—Textile vocational education is available today to high school pupils in the Chattahoo-

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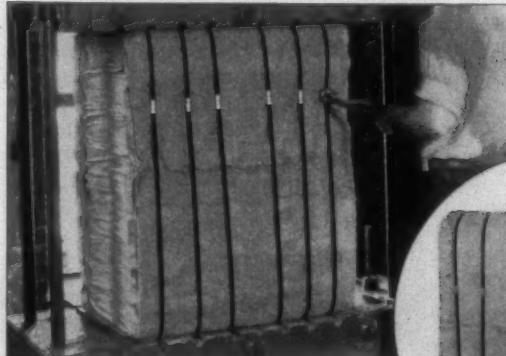
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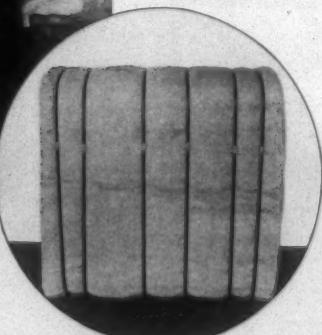
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At left. Showing bale compressed, being sealed with No. 8-H Sealer and No. 50 Signode Seals.

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Classified Ads**

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**Cotton Goods Markets**

New York.—A new wave of buying, beginning in print cloths, spread to other sections of the cotton goods markets last week and large sales were recorded over a wide range of fabrics. Buying in print cloths was extremely active. Sales for the week were estimated at more than 12 weeks production. The gray goods mills are now in the best position since 1923 and the volume of unfilled orders bids fair to be further stepped up by continued good business.

Higher prices were named and buyers continued to take large quantities. There are now virtually no supplies of standard constructions available for spot shipment and the mills are well sold through the end of the year that only small supplies can be had before then.

Buying has come from all consuming trades in varying degrees, but there are many individual buyers who are understood to be in need of goods within the year. There are such minor offerings now available that further price increases are still expected.

The standard print cloth numbers were usually higher for 1936 deliveries than 1937, and while buyers showed some resistance to the new advances, sales were made of good quantities of each style at the higher levels. The 39-inch 4-yard 80 squares brought 8½c for deliveries through December and 8¾c for January and forward.

Carded broadcloths were stronger and were active. The 80x60s had generally moved up to 6¾c. There was good business on 100x60s at 8¼c and on 112x60s at 9¼c. The 90x60s were held at 7¾c. For 128x68s and 136x68s, carded, 10c was the market and this was reported paid on both styles.

Sheetings sold in good quantities, but prices continued generally unchanged. Nearly all styles were moved in large amounts, and several could not be had for deliveries within a month or more.

Trading in fine goods ran into good volume and many mills were out of the market. Nearby deliveries of several of the standard numbers were difficult to buy, and some mills were reported to be sold solidly through the end of the year.

Print cloths, 27-in., 64x60s	4½
Print cloths, 28-in., 64x60s	4½
Gray goods, 38-in., 64x60s	6½
Gray goods, 39-in., 80x80s	8½
Gray goods, 39-in., 68x72s	7½
Brown sheetings, 3-yard	8¾
Brown sheetings, standard	9¼
Tickings, 8-ounce	16
Denims	13½
Brown sheetings, 4-yard, 56-60	8
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**J. P. STEVENS & CO. Inc.**

*Selling Agents*

40-46 Leonard St., New York

## Cotton Yarn Markets

Philadelphia, Pa.—Interest in any buying of yarns continued active last week. Demand for shipment on past orders continued good and a great many mills were being pushed to make wanted deliveries.

Yarn users largely showed interest in deliveries through the remainder of the current year. Additionally they bought for shipment from mills through the first quarter of 1937 and some business was done for April-May-June. Part of the inquiry went unanswered through the inability of spinners to furnish the deliveries sought for this year. The result was business overflowed into the early months of 1937, sometimes through January and otherwise into February.

Interest in carded knitting yarns is said by some sellers to have lagged to some extent, but it is pointed out that in some knitwear lines there will be an overlapping of fall and winter merchandise with production of the beginning of the spring lines, which would produce a scramble for yarn deliveries. Customers are pictured as specifying regularly and rapidly, so that even where contracts of 100,000 pounds or larger are placed, they do not last long at the recent and present rate of deliveries.

Industrial yarns are firming up on larger demand. Deliveries are worrying suppliers and consumers alike. Some mills are from four to eight weeks behind their promises and the situation is threatening to become acute. Complaints of dealers in waste that supplies, despite heavy spindle activity, are not too abundant, seem to have some justification.

In combed peeler yarns, sales for September were large, bringing the third quarter total sales of single and ply yarns combined to about 20 million pounds, with shipments approximating 24 million and production of around 22,400,000 pounds. In comparison with last year, combed yarn sales thus far in 1936 already are within 18 per cent of the 1935 total, with three months' selling still ahead of the market. It is, therefore, still more strongly indicated than before that 1936 will be a banner year in combed peeler yarns.

Quotations are as of October 3rd.

Southern Single Skeins		24s	30 1/2
8s	25	31	
10s	25	33	
12s	25	39	
14s	26		
20s	27 1/2		
26s	29 1/2-30	25	
30s	32	25 1/2	
36s	37 1/2	26	
40s	38 1/2	26 1/2	
		28	
Southern Single Warps		20s	29
10s	25		
12s	25 1/2		
14s	26		
16s	26 1/2		
20s	27 1/2		
26s	29 1/2-30		
30s	32		
40s	37 1/2		
Southern Two-Ply Chain Warps			
8s	25	22	
10s	25 1/2	23	
12s	26	24	
16s	27 1/2	26	
20s	28 1/2	25	
24s	30 1/2	24	
26s	31	24 1/2	
30s	33	25	
36s	37-37 1/2	25 1/2	
40s	39	26	
Southern Two-Ply Skeins		18s	26 1/2
8s	25	27	
10s	25 1/2	28	
12s	26	29	
14s	26 1/2	30	
16s	27	31	
20s	28 1/2	32	

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CHARLOTTE, N. C.

*Makers of a Complete Line of Leather Belting*



As a Symphony Orchestra is melodious to the ear, a harmony of color and design is pleasing to the eye. Keep unity in mind when you pack your products. Have your labels, seals or bands, and boxes, of identical color and style and you will have a melody of effective advertising and greater sales.

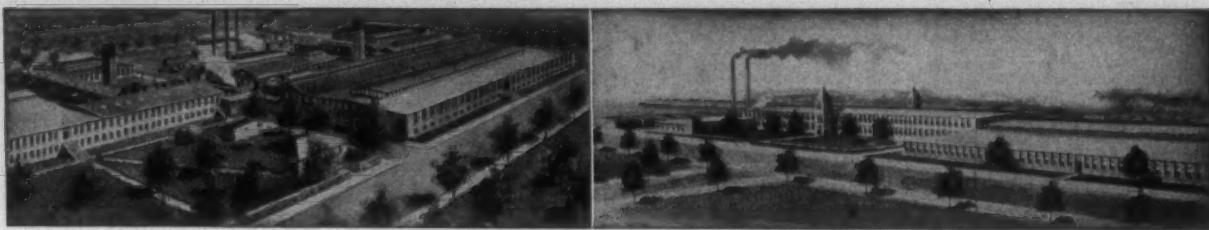
Economy in art work and engravings is also made possible through "CO-ORDINATED PACKAGING."

A complete Art Department is maintained to create individual designs to fit your packaging requirements. Allow us, at no cost or obligation, to submit suggestions for your complete packaging.

### Old Dominion Box Co.

Lynchburg, Va.  
Winston-Salem, N. C. Burlington, N. C.  
Pulaski, Va. Asheboro, N. C.  
Charlotte, N. C.

**Old Dominion Paper Boxes**



## Visiting The Mills

By Mrs. Ethel Thomas Dabbs (Aunt Becky)

### ROCK HILL, S. C.

#### INDUSTRIAL COTTON MILLS

A large new addition to this already large concern is fast going up. It is a two-story building of brick and concrete; the first floor is for a storage room and the second for a cloth room. The present cloth room will be used for other purposes.

This mill manufactures blue denims of superior quality which is finished to perfection, even sanforized. A garment made from these goods does not shrink—a distinguishing element or characteristic that mothers know how to appreciate.

#### WEAVE ROOM CONVENiences

I saw something here I had not noticed elsewhere—a well-worked-out plan for convenience of battery hands, which does away with drudgery. In the big alley two girls do nothing but fill boxes for the battery hands. These boxes are on wheels and are long and narrow enough to glide down between the looms, high enough to keep the operative from stooping, and filling batteries becomes a pleasant occupation.

When the operative makes the round, or the box gets empty, it is exchanged for a full one, which is standing there ready. This certainly beats the old method of carrying heavy loads of filling in a bag or apron, tied around one's waist, which is a back-breaker and detrimental to health.

#### OVERSEERS AND OTHERS

D. E. Mehaffey, overseer of carding, was "very near death" this time last year, but as well as over this time; C. A. Smith is second hand. S. T. Enloe is overseer on second shift. Other live-wires are W. L. Barry, F. L. Robinson and H. C. McCammon, card grinders; Luther Hovis and W. N. Gaynor, section men.

T. F. Starnes is overseer spinning; T. W. West, second hand; A. J. Deese and A. V. Earle, section men; C. C. Prince, overseer spinning on second shift.

V. J. Deas is overseer weaving; A. B. Fletcher, second hand; W. F. Starnes, head loom fixer; J. A. Covington, loom fixer—and one of the dependable ones; Homer Blackmon, a weaver, is interested in textiles. There are a large number of splendid people—loom fixers and

weavers—who read our magazine.

J. B. Garrison and A. W. Garrison are two of our loyal friends in tying-in department. H. V. Fields, in the knotter room, is interested in reading things that will help him climb the ladder of success.

G. W. Paxton (widower—and, girls, you'd better get busp, leap year is almost gone!) is overseer dyeing; S. K. Lineberger, master mechanic.

### HIGH SHOALS, N. C.

#### JACKSON MILLS—PLANT No. 3

Well! I got lost here; couldn't find the office. The cloth room is where the office had been for years, our good friend, L. E. Hollar, formerly at Entwistle Mill, Rockingham, in charge and looking happy and "at home."

Finally I found Superintendent S. R. Powers and was shown the handsome big new offices, which was formerly the boarding house, and has been worked over and fixed up till it looks absolutely new. The store, postoffice and barber shop have been moved to a more central position (they joined one end of the mill) and this building has been remodeled and turned into a cloth room on second floor and a storage room on first floor.

New warehouse platforms have been built, paint has been used generously, and this is now one of the prettiest places imaginable.

It is almost miraculous—to see how much has been accomplished in the way of improvements here, since it became the property of Jackson Mills, with Alfred More, Wellford, S. C., president and treasurer; S. E. Anderson, secretary and assistant treasurer; C. L. Chandler, vice-president and general manager, and S. R. Powell, superintendent.

#### THE OVERSEERS

L. H. Miller is overseer carding on first shift, and J. W. Clark, on second shift.

R. L. Sullivan is overseer spinning on first, and W. O. Long on second shift.

A. Ballew is overseer weaving on first, and C. H. Keener on second shift.

L. E. Hollar, overseer cloth room.

V. B. Lindsay, master mechanic.

Others who are working up and are either second hands or section men are: B. L. Pasour, F. L. Timmons, A. P. Tisdale, M. L. Walters, J. R. Abernathy, W. D. Bumgardner, W. E. Daniel, O. H. Dillard, T. H. Feafner and R. G. Jamison—all readers of The Textile Bulletin.

### MARTINSVILLE, VA.

#### MARTINSVILLE COTTON MILLS CO., INC.

For a real "pepper-upper" we suggest a drive to the beautiful mountains that surround Martinsville, located between Reidsville, N. C., and Roanoke, Va. Fall, which is fast approaching, is dotting the mountainsides with pictures no artist can well paint. Trees are taking on a new fall suit that is gorgeous beyond words. Mountains at this time of the year are a real tonic for a rundown system. Take the entire family for a drive to "the hills," and be glad you did.

We love Martinsville, and love the way people go about doing things and making a stranger feel perfectly at home. In all our travels, we can always class Martinsville as a "good place to go," and no matter how often we call on our good friend, L. V. Andrews, superintendent, we get a "always glad to see you" welcome. This also goes for his entire staff of efficient overseers, which we list below and who are regular subscribers and also those fine second hands and section men who signed on the dotted line.

They are: L. V. Andrews, superintendent; J. B. Bradford, overseer weaving, with J. O. Frye, night; W. T. Draper, overseer cloth room; Jack Turner, formerly of Mooresville, overseer carding and spinning, and O. B. Joiner, master mechanic. Among others who subscribed to The Bulletin are: O. B. Agee, second spinning; H. H. Powell, section spinning; R. A. Jefferson, loom fixer; G. V. Stanley, section spinning; G. O. Powell is in charge of spinning and carding at night, with Frank Graveley and L. E. Rikard, second hands in carding.

B. C. T.

### WELLFORD, S. C.

#### JACKSON MILLS—PLANT NO. 2

This mill has just started up after three weeks' stop from damage by lightning, which struck a main wire and burned out the generator. The patience and kind co-operation of everyone during the unavoidable stop were greatly appreciated by the management.

The writer appreciated an invitation to the pretty kindergarten across the street from the office, where Miss Goggans is in charge. There were 17 little ones having the time of their lives, singing and marching to piano music. Miss Goggans has been kindergarten teacher here for three years and is greatly loved for her goodness and patience with the kiddies. The little ones sang "Good Morning to You, Aunt Becky," who felt wonder-

fully cheered up and ready to tackle any duty that presented itself.

A new Methodist church has been built here to the delight of everyone.

Mr. C. L. Chandler, vice-president of Jackson Mills, is able to get around again after a rather painful automobile accident some weeks ago. We are glad it was no worse.

It is always a pleasure to call at this office. Mr. Alfred Moore, president and secretary, Mr. S. E. Anderson, his brother, assistant, and the office lady, Mrs. Dorrill, are the kind one loves to meet.

A. G. Jordan is superintendent; J. L. Jordan, overseer carding; A. H. Carnes, overseer spinning; C. L. Leopard, overseer weaving; L. C. Davis, overseer cloth room.

### LUPTON CITY, TENN.

#### DIXIE MERCERIZING CO.

President, Geo. R. West, Jr.; vice-president, J. B. Frierson, Jr.; treasurer, A. K. Johnson; superintendent of spinning, W. N. Thomas; superintendent of mercerizing, P. F. O'Neill. The product is combed peeler mercerized yarns—cones and skeins.

This mill is clean, roomy, well ventilated and comfortable. The machinery is modern and every department well kept.

Had the pleasure of visiting the Recreation Hall where I saw numerous sport trophies that were won by the boys and girls baseball, basketball and soft ball teams. The boys and girls together have won ten championships since January, 1934.

A. L. Johnston, recreation director, calls himself "the appendix" (something unnecessary!) But trust a reporter to get to the bottom of things. That community would miss that "Appendix" terribly should he be "cut out." He is doing a great work.

Mrs. C. A. Scott is village nurse and a very attractive lady.

#### YOUNG PEOPLE IN TEXTILE CLASSES

E. W. Hill, chief inspector of mercerizing and spinning, teaches a textile class of 16 young men. In last year's class, nine graduated and won diplomas—all getting good positions with the company.

A number of the young men in the mill are studying for promotions—all honor to them! Some of the progressives are as follows: J. W. Elrod, second hand in spinning; Ed Anglin, in roller shop; Roy Moore, Johnny Boyd, Cecil Bryson and W. N. Culpepper, section men; M. E. Seals and J. D. (Jud) Miller, second hands. (Jud is always interested in things worth while; he is a great singer and dependable help in church and Sunday school work.) J. L. Ledbetter, second hand in twisting; O. M. Denton, R. C. Carney and Floyd Cooper, card grinders; R. C. Carney and Floyd Cooper, card grinders; G. C. Ballard, second hand in carding.

H. M. Miles, overseer carding, is interested in farming; R. F. Gardner, overseer spinning, has my sincere thanks for courtesies extended; J. P. Collum is overseer spinning on second shift.

# Southern Sources of Supply

## For Equipment, Parts, Material, Service

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in *TEXTILE BULLETIN*. We realize that operating executives are frequently in urgent need of information service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

**ABBOTT MACHINE CO.**, Wilton, N. H. Sou. Agt., L. S. Ligon, Greenville, S. C.

**AKRON BELTING CO.**, Akron, O. Sou. Branches, 209 Johnson Bldg., Charlotte, N. C.; 905 Woodside Bldg., Greenville, S. C.; 20 Adams Ave., Memphis, Tenn.

**ALLIS-CHALMERS MFG. CO.**, Milwaukee, Wis. Sou. Sales Offices: Atlanta, Ga.; Healey Bldg., Berrien Moore, Mgr.; Baltimore, Md.; Lexington Bldg., A. T. Jacobson, Mgr.; Birmingham, Ala.; Webb Crawford Bldg., John J. Greagan, Mgr.; Charlotte, N. C.; Johnston Bldg., William Parker, Mgr.; Chattanooga, Tenn.; Tennessee Electric Power Bldg., D. S. Kerr, Mgr.; Cincinnati, O.; First National Bank Bldg., W. G. May, Mgr.; Dallas, Tex.; Santa Fe Bldg., E. W. Burbank, Mgr.; Houston, Tex.; Shell Bldg., K. P. Ribble, Mgr.; New Orleans, La.; Canal Bank Bldg., F. W. Stevens, Mgr.; Richmond, Va.; Electric Bldg., C. L. Crosby, Mgr.; St. Louis, Mo.; Railway Exchange Bldg., C. L. Orth, Mgr.; San Antonio, Tex.; Frost National Bank Bldg., Earl R. Hurley, Mgr.; Tampa, Fla.; 415 Hampton St., H. C. Flanagan, Mgr.; Tulsa, Okla.; 18 North Guthrie St., D. M. McCarron, Mgr.; Washington, D. C.; Southern Bldg., H. C. Hood, Mgr.; Washington, D. C.

**AMERICAN CYANAMID & CHEMICAL CORP.**, 30 Rockefeller Plaza, New York City. Sou. Office and Warehouse, 301 E. 7th St., Charlotte, N. C.; Paul Haddock, Sou. Mgr.

**AMERICAN ENKA CORP.**, 271 Church St., New York City. Sou. Rep., R. J. Mebane, Asheville, N. C.

**AMERICAN MOISTENING CO.**, Providence, R. I. Southern plant, Charlotte, N. C.

**AMERICAN PAPER TUBE CO.**, Woonsocket, R. I. Sou. Rep., Ernest F. Culbreath, P. O. Box 11, Charlotte, N. C.

**ARMSTRONG CORK PRODUCTS CO.** (Textile Division), Lancaster, Pa. Sou. Office, 33 Norwood Place, Greenville, S. C. T. L. Hill.

**ARNOLD, HOFFMAN & CO., Inc.**, Providence, R. I. Frank W. Johnson, Sou. Mgr., Box 1268, Charlotte, N. C. Sou. Reps., Robert E. Buck, Box 904, Greenville, S. C.; Harold T. Buck, 1615 12th St., Columbus, Ga.; W. Chester Cobb, Hotel Russell Erskine, Huntsville, Ala.

**ASHWORTH BROS., Inc.**, Charlotte, N. C. Sou. Offices, 44-A Norwood Place, Greenville, S. C.; 215 Central Ave., S.W., Atlanta, Ga.; Texas Rep., Textile Supply Co., Dallas, Tex.

**ATLANTA HARNESS & REED MFG. CO.**, Atlanta, Ga. G. P. Carmichael, Atlanta Office; Alabama, Georgia and Mississippi Rep.; Barney R. Cole, Atlanta Office; North Carolina and South Carolina Rep., Dave Jones, Greenville, S. C.

**BAHNSON CO., THE**, Winston-Salem, N. C. North and South Carolina Rep., S. C. Stimson, Winston-Salem, N. C. Sou. Rep., I. L. Brown, 886 Brewery St. N.E., Atlanta, Ga. Northern Rep., F. S. Frambach, 703 Embree Crescent, Westfield, N. J. Western Rep., D. D. Smith, 814 W. South St., Kalamazoo, Mich.

**BANCROFT BELTING CO.**, Boston, Mass. Sou. Rep., Ernest F. Culbreath, P. O. Box 11, Charlotte, N. C.

**BARBER-COLMAN CO.**, Rockford, Ill. Sou. Office, 31 W. McBee Ave., Greenville, S. C. J. H. Spencer, Mgr.

**BORNE, SCRYSYMER CO.**, 17 Battery Place, New York City. Sou. Mgr., H. L. Siever, P. O. Box 1169, Charlotte, N. C. Sales Reps., W. B. Ulter, 608 Palmetto St., Spartanburg, S. C.; R. C. Young, 1216 Kenilworth Ave., Charlotte, N. C.; John Ferguson, 303 Hill St., LaGrange, Ga.

**BROWN CO., DAVID**, Lawrence, Mass. Sou. Reps., Ralph Gossett, Woodside Bldg., Greenville, S. C.; William J. Moore, Woodside Bldg., Greenville, S. C.; Belton C. Plowden, Griffin, Ga.; Gastonia Mill Supply Co., Gastonia, N. C.; Russell A. Singleton, Dallas, Tex.; S. Frank Jones, 203 Johnston Bldg., Charlotte, N. C.

**BROWN & CO., D. P.**, Philadelphia, Pa. Sou. Rep., N. W. Pyle, Box 834, Charlotte, N. C.

**CAMPBELL & CO., JOHN**, 75 Hudson St., New York City. Sou. Reps., M. L. Kirby, P. O. Box 432, West Point, Ga.; Mike A. Stough, P. O. Box 701, Charlotte, N. C.; A. Max Browning, Hillsboro, N. C.

**CAROLINA REFRactories CO.**, Hartsville, S. C.

**CHARLOTTE CHEMICAL LABORATORIES, Inc.**, Charlotte, N. C.

**CHARLOTTE LEATHER BELTING CO.**, Charlotte, N. C.

**CHICAGO MILL & LUMBER CO.**, 614 Johnston Bldg., Charlotte, N. C. Sales Staff, E. J. Mueller, C. P. Semmlow. Executive Offices, 111 W. Washington St., Chicago, Ill. Plants at: Plymouth, N. C.; Helena, Ark.; Greenville, Miss.; Tullulah, La.; Chicago, Ill.

**CIBA CO., Inc.**, Greenwich and Morton Sts., New York City. Sou. Offices and Warehouse, Charlotte, N. C.

**CLINTON CO.**, Clinton, Iowa. Sou. Reps., Luther Knowles, Jr., P. O. Box 127, Charlotte, N. C.; T. LeRoy Smith, Box 654, Tel. 2-3321, Charlotte, N. C. Clinton Sales Co., Inc., Byrd Miller, Grady Gilbert, 2 Morgan Bldg., Greenville, S. C.; C. Lee Gilbert, 130 High Point Rd., Box 481, Spartanburg, S. C.; A. C. Boyd, 1071 Bellevue Drive N.E., Tel. Hem. 7055, Atlanta, Ga. Stocks carried at Carolina Transfer & Storage Co., Charlotte, N. C.; Consolidated Brokerage Co., Greenville, S. C.; Atlanta Service Warehouse Co., Atlanta, Ga.

**COMMERCIAL FACTORS CORP.**, 2 Park Ave., New York City. Sou. Rep., T. Holt Haywood, Reynolds Bldg., Winston-Salem, N. C.

**CORN PRODUCTS REFINING CO.**, 17 Battery Place, New York City. Corn Products Sales Co., Greenville, S. C.; John R. White, Mgr.; Corn Products Sales Co., Montgomery Bldg., Spartanburg, S. C.; J. Carty Alexander, Asst. Sou. Mgr.; Corn Products Sales Co. (Milk and Paper Starch Div.), Hurt Bldg., Atlanta, Ga., C. G. Stover, Mgr.; Corn Products Sales Co., 824-25 N. C. Bank Bldg., Greensboro, N. C.; W. R. Joyner, Mgr.; Corn Products Sales Co., Comer Bldg., Birmingham, Ala.; L. H. Kelley, Mgr. Stocks carried at convenient points.

**CRESPI, BAKER & CO.**, 411½ S. Tryon St., Charlotte, N. C.

**CROMPTON & KNOWLES LOOM WORKS**, Worcester, Mass. Sou. Plant, Charlotte, N. C.

**CUTLER, ROGER W.**, 141 Milk St., Boston, Mass. Sou. Agents: B. L. Stewart Roller Shop, Laurinburg, N. C.; Dixie Roller Shop, Rockingham, N. C.; A. J. Whittemore & Sons, Burlington, N. C.; The Georgia Roller Covering Co., Griffin, Ga.; Textile Roll Coverings Works, LaGrange, Ga.; East Point Roller Cov. Co., East Point, Ga.; Dixie Roll & Cot Co., Macon, Ga.; Morrow Roller Shop, Albemarle, N. C.; Peerless Roll Covering Co., Chattanooga, Tenn.; Textile Roll & Cot Co., Dallas, Tex.; Greenville Textile Supply Co., Greenville, S. C.; Anniston Roll Covering Co., Anniston, Ala.

**DARY RING TRAVELER CO.**, Taunton, Mass. Sou. Rep., John E. Humphries, P. O. Box 843, Greenville, S. C.; Chas. L. Ashley, P. O. Box 720, Atlanta, Ga.

**DAUGHTRY SHEET METAL CO.**, Charlotte, N. C.

**DILLARD PAPER CO.**, Greensboro, N. C. Greenville, S. C. Sou. Reps., E. B. Spencer, Box 681, Charlotte, N. C.; Jess Caldwell, East Radford, Va.

**DRAPER CORPORATION**, Hopedale, Mass. Sou. Rep., E. N. Darrin, Vice-Pres.; Sou. Offices and Warehouses, 242 Forsyth St., S.W., Atlanta, Ga.; W. M. Mitchell; Spartanburg, S. C.; Clare H. Draper, Jr.

**DUNKEL CO., PAUL A.**, 82 Wall St., New York City.

**DU PONT DE NEMOURS & CO., Inc.**, E. I., Dyestuffs Div., Wilmington, Del. John L. Dabbs, Mgr.; D. C. Newman, Asst. Mgr.; E. P. Davidson, Asst. Mgr.; Technical, Sou. Warehouses, 302 W. First St., Charlotte, N. C. Reps., L. E. Green, H. B. Constable, W. R. Ivey, Charlotte Office; J. D. Sandridge, W. M. Hunt, 1031 Jefferson Standard Bldg., Greensboro, N. C.; B. R. Dabbs, John L. Dabbs, Jr., 715 Providence Bldg., Chattanooga, Tenn.; R. D. Sloan, Amanda Apt., Greenville, S. C.; J. M. Howard, 135 S. Spring St., Concord, N. C.; W. F. Crayton, Dimon Court Apt., Columbus, Ga.; J. A. Franklin, Augusta, Ga.; Tom Taylor, Newnan, Ga.

**DU PONT DE NEMOURS & CO., Inc.**, E. I., The R. & H. Chemicals Dept., Wilmington, Del. R. M. Levy, Dist. Sales Mgr., 302 W. First St., Charlotte, N. C.

**EATON, PAUL B.**, 218 Johnston Bldg., Charlotte, N. C.

**EMMONS LOOM HARNESS CO.**, Lawrence, Mass. Sou. Rep., George F. Bahan, P. O. Box 581, Charlotte, N. C.

**ENGINEERING SALES CO.**, 217 Builders' Bldg., Charlotte, N. C.; S. R. and V. G. Brookshire.

**FAFNIR BEARING CO.**, New Britain, Conn. Sou. Reps., Stanley D. Berg, No. 321 N. Caswell Road, Charlotte, N. C.; A. G. Laughridge, No. 248 Spring St., N.W., Atlanta, Ga.

**FRANKLIN MACHINE CO.**, 44 Cross St., Providence, R. I.

**FRANKLIN PROCESS CO.**, Providence, R. I. Sou. Plants, Greenville, S. C., and Chattanooga, Tenn.

**GENERAL COAL CO.**, 1019 Johnston Bldg., Charlotte, N. C. C. L. Rowe, Sou. Sales Mgr.; S. P. Hutchinson, Jr., Asst. Sou. Sales Mgr.; Reps., J. W. Lassiter, Grace American Bldg., Richmond, Va.; D. H. R. Wiss, Law Bldg., Norfolk, Va.; W. A. Counts, Law and Commerce Bldgs., Bluefield, W. Va.; C. C. Borden, Greensboro, N. C.; H. C. Moshell, Charleston, S. C.; G. P. W. Black, Greenville, S. C.; F. W. Reagan, Asheville, N. C.; H. G. Thompson, Bristol, Tenn.

**GENERAL DYESTUFF CORP.**, 230 Fifth Ave., New York City. Sou. Office and Warehouse, 1101 S. Blvd., Charlotte, N. C.; B. A. Stigen, Mgr.

**GENERAL ELECTRIC CO.**, Schenectady, N. Y. Sou. Sales Offices and Warehouses, Atlanta, Ga.; E. H. Ginn, Dist. Mgr.; Charleston, W. Va.; W. L. Alston, Mgr.; Charlotte, N. C.; E. P. Coles, Mgr.; Dallas, Tex.; L. T. Blaisdell, Dist. Mgr.; Houston, Tex.; E. M. Wise, W. O'Hara, Mgrs.; Oklahoma City, Okla.; F. D. Hathaway, B. F. Dunlap, Mgrs.; Sou. Sales Offices, Birmingham, Ala.; R. T. Brooke, Mgr.; Chattanooga, Tenn.; W. O. McKinney, Mgr.; Ft. Worth, Tex.; A. H. Keen, Mgr.; Knoxville, Tenn.; A. B. Cox, Mgr.; Louisville, Ky.; E. B. Myrick, Mgr.; Memphis, Tenn.; G. O. McFarlane, Mgr.; Nashville, Tenn.; J. H. Barksdale, Mgr.; New Orleans, La.; B. Willard, Mgr.; Richmond, Va.; J. W. Hicklin, Mgr.; San Antonio, Tex.; I. A. Uhr, Mgr.; Sou. Service Shops, Atlanta, Ga.; W. J. Seibert, Mgr.; Dallas, Tex.; W. F. Kaston, Mgr.; Houston, Tex.; P. C. Bunker, Mgr.

**GENERAL ELECTRIC VAPOR LAMP CO.**, Hoboken, N. J. Sou. Reps., Frank E. Keener, 187 Spring St., N.W., Atlanta, Ga.; C. N. Knapp, Commercial Bank Bldg., Charlotte, N. C.

**GILL LEATHER CO.**, Salem, Mass. Sou. Reps., Russell A. Singleton, Dallas, Tex.; Belton C. Plowden, Griffin, Ga.; Ralph Gossett, Greenville, S. C.; Wm. J. Moore, Greenville, S. C.; W. J. Hamner, Gastonia, N. C.

**GILMER CO.**, L. H., Tacony, Philadelphia, Pa. Sou. Factory Rep., William W. Conrad, Greenwood, S. C. Sou. Mill Supply Distributors: Alabama—Owens-Richards Co., Inc., Birmingham; Southern Bearing & Parts Co., Birmingham; Selma Foundry & Machine Co., Selma, Florida—Llewellyn Machinery Corp., Miami; Harry P. Lee, Inc., Orlando; Johnston Engineering Corp., St. Petersburg; Southern Pump & Supply Co., Tampa, Georgia—Fulton Supply Co., Atlanta; Corbin Supply Co., Macon; Mill & Ship Supply Co., Savannah (formerly John D. Robinson Co., Mississippi)—Soule Steam Feed Works, Meridian, North Carolina—McLeod Leather & Belting Co., Greensboro; Odell Mill Supply Co., Greensboro, South Carolina—Greenville Textile Supply Co., Greenville, Tennessee—Rogers-Bailey Hardware Co., Chattanooga; Browning Belting Co., Knoxville; J. E. Dilworth Co., Memphis; Nashville Machine & Supply Co., Nashville, Virginia—Todd Co., Inc., Norfolk; Smith-Courtney Co., Richmond; Johnston Electric Co., Staunton, West Virginia—Central Electric Repair Co., Falmont.

**GOODRICH CO.**, B. F., 4th and Brevard Sts., Charlotte, N. C. Atlanta Dist. Office, 376 Nelson St., S.W., Atlanta, Ga.

**GOODYEAR TIRE & RUBBER CO., Inc.**, The, Akron, O. Sou. Reps., W. C. Killick, 205-207 E. 7th St., Charlotte, N. C.; P. B. Eckels, 141 N. Myrtle Ave., Jacksonville, Fla.; Boyd Arthur, 713-715 Linden Ave., Memphis, Tenn.; T. F. Stringer, 500-6 N. Carrollton Ave., New Orleans, La.; E. M. Champion, 709-11 Spring St., Shreveport, La.; Paul Stevens, 1809-11 First Ave., N. Birmingham, Ala.; B. S. Parker, Jr., Cor. W. Jackson and Oak Sts., Knoxville, Tenn.; E. W. Sanders, 209 E. Broadway, Louisville, Ky.; H. R. Zierach, 1225-31 W. Broad St., Richmond, Va.; J. C. Pye, 191-199 Marietta St., Atlanta, Ga.

**GRASSELLI CHEMICAL CO.**, Cleveland, O. Sou. Office and Warehouse, 302 W. First St., Charlotte, N. C.

**GRATON & KNIGHT CO.**, Worcester, Mass. Sales Reps., R. W. Davis, Graton & Knight Co., 313 Vine St., Philadelphia, Pa.; O. D. Landis, 1709 Springdale Ave., Charlotte, N. C.; P. T. Pinckney, Jr., 2360 Forrest Ave., Apt. 3, Memphis, Tenn.; H. L. Cook, Graton & Knight Co., 2615 Commerce St., Dallas, Tex. Jobbers: Young & Vann Supply Co., Birmingham, Ala.; McGowin-Lyons Hdwe. & Supply Co., Mobile, Ala.; C. C. Anderson, 301 Woodside Bldg., Annex, Greenville, S. C.; Cameron & Barkley Co., Charleston, S. C.; Cameron & Barkley Co., Jacksonville, Fla.; Cameron & Barkley Co., Miami, Fla.; Cameron & Barkley Co., Tampa, Fla.; Smith-Courtney Co., Richmond, Va.; Taylor-Parker, Inc., Norfolk, Va.; Battey Machinery Co., Rome, Ga.; Columbus Iron Works, Columbus, Ga.; Fulton Supply Co., Atlanta, Ga.; Dallas Belting Co., Dallas, Tex.; Textile Supply Co., Dallas, Tex.; Textile Mill Supply Co., Charlotte, N. C.; Keith-Simmons Co., Nashville, Tenn.; Lewis Supply Co., Memphis, Tenn.; Lewis Supply Co., Helena, Ark.; Southern Supply Co., Jackson, Tenn.; E. D. Morton & Co., Louisville, Ky.; Standard Supply & Hdwe. Co., New Orleans, La.

**GREENVILLE BELTING CO.**, Greenville, S. C.

**GREENSBORO LOOM REED CO.**, Box 1375, Greensboro, N. C. Phone Greensboro 5071 collect. Geo. A. McFetters, Pres. and Mgr.; Geo. H. Batchelor, sales manager.

**GULF OIL CORPORATION OF PA.**, Successor to **GULF REFINING CO.**, Pittsburgh, Pa. Division Sales Offices: Atlanta, Ga.—A. W. Ripley, Greenville, S. C.; T. C. Scaife, Spartanburg, S. C.; J. H. Hooten, Gastonia, N. C.; R. G. Burkhalter, Charlotte, N. C.; G. P. King, Jr., Augusta, Ga.; Boston, Mass.; New York, N. Y.; Philadelphia, Pa.; New Orleans, La.; Houston, Tex.; Louisville, Ky.; Toledo, O.

**HART PRODUCTS CORP.**, 1440 Broadway, New York City. Sou. Reps., Samuel Lehrer, Box 234, Spartanburg, S. C.; Talley W. Piper, P. O. Box 534, Fairfax, Ala.; L. R. Unruh, P. O. Box 1502, Charlotte, N. C.

**H & B AMERICAN MACHINE CO.**, Pawtucket, R. I. Sou. Offices, 815 The Citizens and Southern National Bank Bldg., Atlanta, Ga.; J. C. Martin, Art.; Johnston Bldg., Charlotte, N. C.; J. W. Rimmer, Mgr.; Fritz Zweifel, Fred Dickinson, Jim Miller, sales and service representatives.

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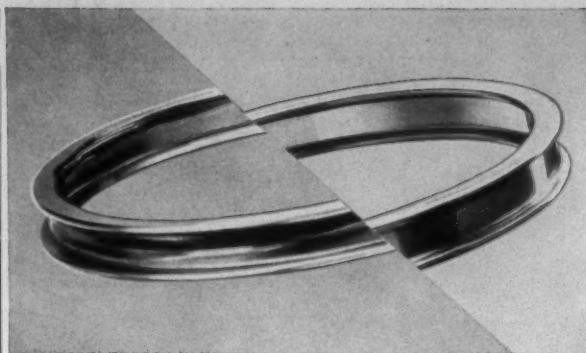
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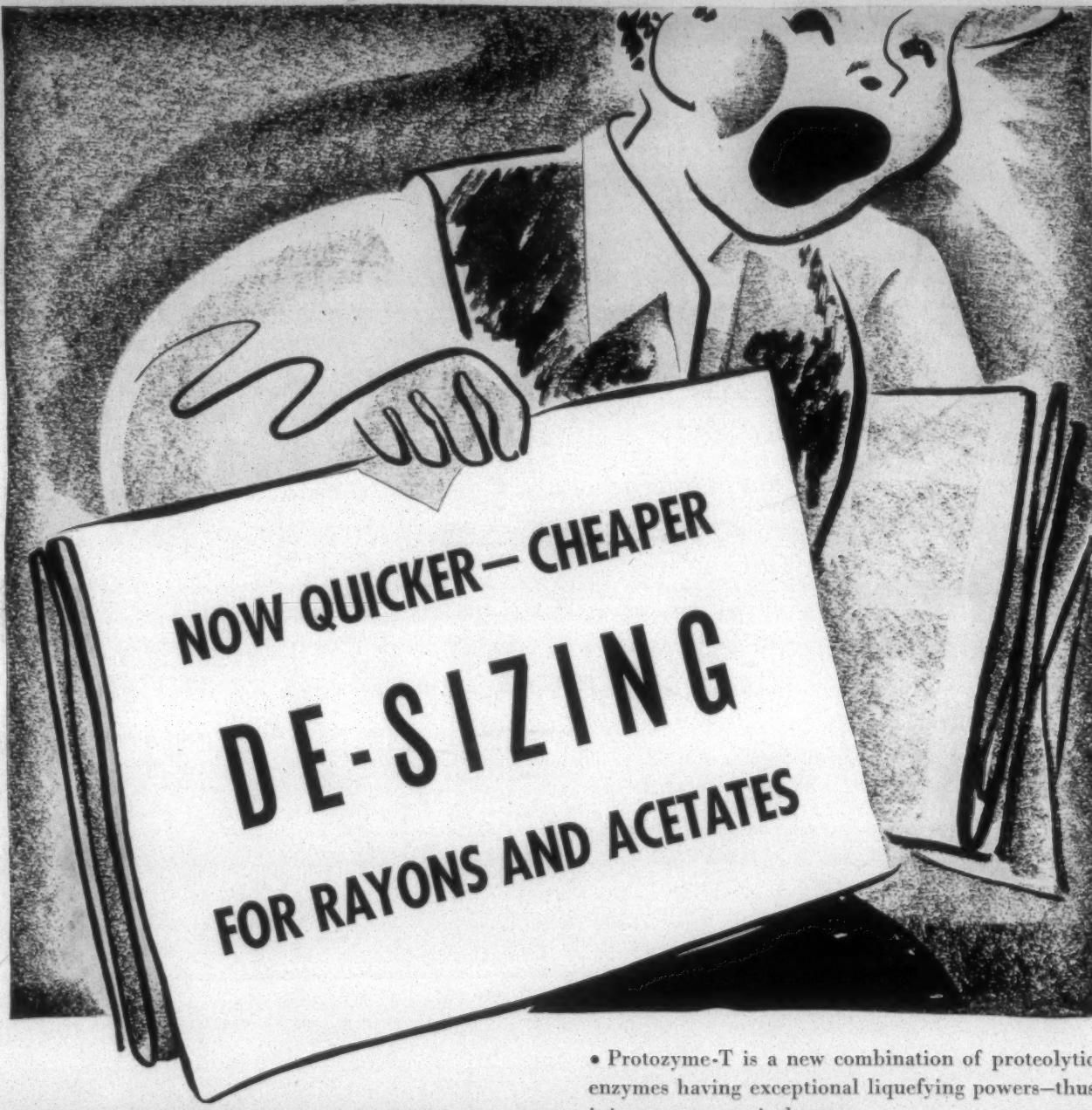
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